

DEFENSE of JAPAN 2022



防衛白書

DEFENSE of JAPAN

2022

MINISTRY of DEFENSE

2022

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MINISTRY OF DEFENSE

On the Publication of Defense of Japan 2022

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The international community is currently facing its greatest trial since WWII. It is not an exaggeration to say that we have entered a new period of crisis in the twenty-first century. Russia's aggression against Ukraine has shocked the world, with the loss of countless innocent civilians' lives giving rise to deep indignation and grief. Such unilateral changes to the status quo by force should never be tolerated, as they shake the very foundation of the international order based on universal values that has supported the peace and prosperity of the international community.

This defiance of international order is not just Europe's problem. As strategic competition between nations becomes more apparent against the backdrop of changes to the global power balance, the existing order is being exposed to serious challenges, especially in the Indo-Pacific region, which is at the center of this competition.

In particular, China continues to unilaterally change or attempt to change the status quo by coercion in the East China Sea and South China Sea. The country's ties with Russia, an aggressor nation, have deepened in recent years, with joint navigations and flights being conducted in the areas surrounding Japan by both Chinese and Russian vessels and aircraft. Furthermore, China has made clear that it would not hesitate to unify Taiwan by force, further increasing tensions in the region.

North Korea has repeatedly carried out ballistic missile launches well into 2022, thereby unilaterally escalating its provocations towards the international community. It has also defended Russia in respect of the latter's aggression against Ukraine, asserting that the fault for this situation lies with the United States and other Western countries.

Fortunately, Japan has many likeminded partners. In the face of unprecedented challenges, the ties between the partners are further strengthened. Among these, the bond of the Japan–U.S. Alliance remains unshakeable, and trilateral cooperation among Japan, the U.S., and Australia, and quadrilateral cooperation among Japan, the U.S., Australia, and India, are further deepening. Also, as symbolized by vessels making port calls to Japan one after another last year, Japan continues to work together with European nations to ensure that the region is free and open.

As a way of defending against any such changes to the international order based on universal values, Japan must not delay in bringing together its knowledge and technology and putting all its collective efforts into strengthening its national defense capabilities.

Japan is currently working on drawing up a new National Security Strategy, etc. under the order of Prime Minister Kishida, and the Government will establish these new strategies boldly and creatively, thinking flexibly beyond existing paradigms in order to preemptively deter changes to the status quo by force and to also be fully prepared for modern warfare, including information warfare and cyber warfare, both seen during Russia’s aggression against Ukraine.

Right now, a large gray cloud hangs over the path towards world peace and security, and the outlook is seemingly obscure. However, one thing for certain is that creating the international order of tomorrow rests on the choices and actions of the people of today. Standing firm in its policies as a peace-loving nation, Japan resolutely continues to oppose any parties who attempt to forcibly change the world order. Japan also intends to continue demonstrating the strength of freedom and democracy and the significance of human rights and laws to the world through its unwavering conviction and tireless efforts.

To constantly defend Japan in a resolute manner and ensure continued regional and international peace and prosperity, as well as international order based on universal values, which has come to support this peace and prosperity thus far, the Ministry of Defense (MOD) and the Self-Defense Forces (SDF) will continue to decisively deal with any and all difficulties to push through this time of trial.

We hope that this white paper clearly explains to Japanese and international readers that the MOD and the SDF have the will and capability to achieve the above, in addition to helping further increase understanding of the environment surrounding Japan and the efforts of the MOD and the SDF.

Booklet

FOCUS

Digest

These special features focus on security issues, deterrence, initiatives in new domains, defense exchanges, and other such topics.

The digest offers an easy-to-understand summary of the content in Part I to Part IV of the main text.

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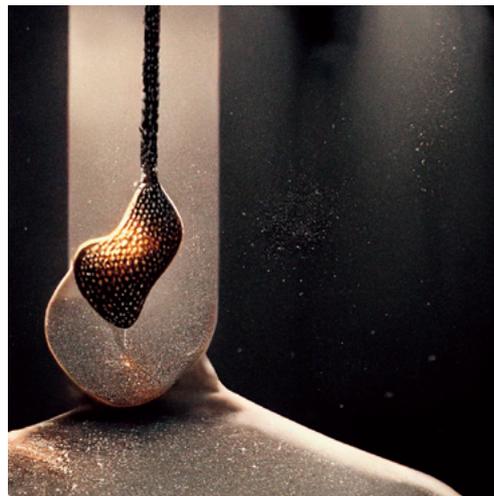
The period covered by this White Paper is up to the end of March 2022, in principle.

The cover of the 2022 Defense of Japan White Paper features an AI art design by Rhizomatiks, a company that continuously pursues cutting-edge, integrated expression across a variety of fields.

The concept is “Overcome hybrid security challenges with innovative ideas and cutting-edge technologies.” The design was created by using AI to generate images through inputting the concept as keywords, and then processing and cutting the images generated.

The design expresses the determination and solid defensive mindset of the Ministry of Defense and the Self-Defense Forces to pioneer new domains through the use of cutting-edge technology and other means in an era when technological advances are fundamentally changing the undergoing state of security.

Cover image



Cover design

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Rhizomatiks conducts cutting-edge artwork production that pursues new possibilities in technology and expression, and works mostly on experimental projects with a strong research and development focus.

<https://rhizomatiks.com/>

Regarding the purpose of Defense of Japan and the target period of its descriptions

The Defense of Japan white paper was first published in 1970, and has been published annually since 1976. The purpose of publishing this paper is to make the current status, issues and initiatives of Japan's defense common knowledge for as many people as possible, as simply as possible.

This edition of Defense of Japan covers the defense and security environment of Japan and the initiatives of the Ministry of Defense (MOD) and the Self-Defense Forces (SDF) during the one year period from April 2021 to March 2022. However, certain important events that took place in the latter half of May 2022 are also described.

In addition, maps in this paper may contain omissions depending on the design and layout and may not necessarily show the entire Japanese territory. Previous editions of Defense of Japan, including this edition, can be viewed on the MOD website, so please feel free to make use of it.

■ Defense of Japan web page

https://www.mod.go.jp/en/publ/w_paper/index.html



■ Defense of Japan Archive

http://www.clearing.mod.go.jp/hakusho_web/



China's Civil-Military Fusion (CMF) and military "intelligitization"



◆ China is ramping up "Civil-Military Fusion" (CMF; the fusion of military and civilian resources), and intelligitization (use of AI, etc.), with the aim of building a "world-class military."*

*Although China has not defined what it means by "world-class military," it has been pointed out that China may be trying to develop military forces that are equal to—or in some cases superior to—the U.S. force.

Accelerating the development of hypersonic glide vehicles

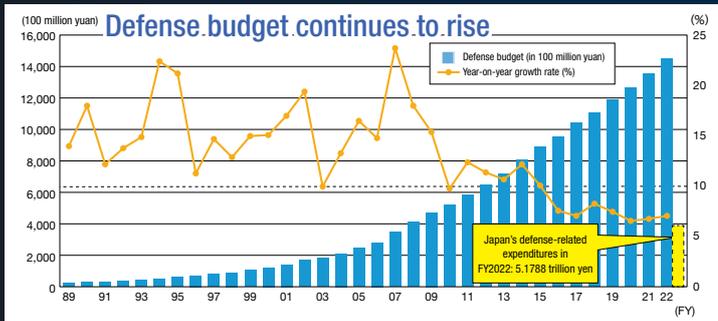
Ballistic missiles believed to be capable of carrying a hypersonic glide vehicle [Avalon/Jiji Press Photo]

Accelerating the development and deployment of UAVs



Chinese combat UAV TB-001 in flight between the main island of Okinawa and Miyakojima Island

Comparison with China's defense expenditures (past 10 years)



For over 30 years, China has been growing its defense budget at a high level and rapidly improving its military power in qualitative and quantitative terms with focus on nuclear, missile, naval and air forces, which is raising strong concerns.



Improving maritime force capability

China's indigenous aircraft carrier "Shandong" [Avalon/Jiji Press Photo]

Russia's aggression against Ukraine

◆ Unilateral changes to the status quo by force shake the foundation of the entire international order, including Asia

Russia's continuing aggression against Ukraine since February 2022 is a serious violation of international law prohibiting the use of force. There are concerns that the effects of such unilateral changes to the status quo by force may extend to the Indo-Pacific region.



Russia's armored vehicles in Ukraine [SPUTNIK/Jiji Press Photo]

In addition to the use of military forces, Russia is believed to have used so-called "hybrid warfare" methods in its aggression against Ukraine, including cyber attacks on internet networks and disinformation campaigns. As for Ukraine, it is reported that political leaders are disseminating information and UAV operations are being conducted using satellite internet provided by U.S. companies.

Security Issues

Intensifying strategic competition between states

Countries increase investment in defense R&D

◆ Responding to challenges to the international order has become a global issue

Strategic competition between states is intensifying in the context of the changing global balance of power. Such strategic competition is further complicated by factors such as China's broad and rapid military build-up, Russia's aggression against Ukraine, and cooperation between China and Russia, making the struggle for international order a global issue.



[CNP/Jiji Press Photo]

The U.S. has positioned economic security as a part of national security



Enactment of the Economic Security Promotion Act

◆ Scope of national security is rapidly expanding to economic and technological fields

Technological advancements are changing the features of warfare as AI-equipped drones conduct attacks and reconnaissance activities, and influence operations such as disinformation campaigns and information diffusion become more sophisticated.

The development, utilization, and management of various technologies, etc. have become policy focal points, based on the recognition that countries that gain an edge in emerging technologies critical to the economy and security will have an advantage in inter-state competition.

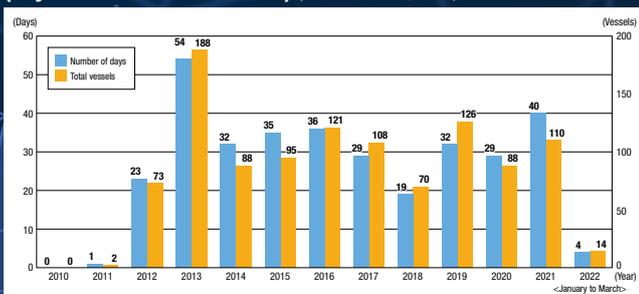
What will the future security environment be like in the Indo-Pacific region?

◆ China is relentlessly continuing unilateral attempts to change the status quo by coercion near the Senkaku Islands. China is also pursuing unilateral changes to the status quo and the creation of faits accomplis in the South China Sea.

China abstained from voting on a UN resolution condemning Russia's aggression against Ukraine and has been strengthening coordination with Russia in recent years

Joint naval patrol by Chinese and Russian warships (October 2021)

▶ Intrusions into the territorial waters surrounding the Senkaku Islands by China Coast Guard and other vessels (days and number of vessels) (as of March 28, 2022)



North Korea defends Russia. Throughout the aggression against Ukraine, North Korea has intensified provocations by repeatedly launching ballistic missiles, including ICBM-class missiles

Image published by the Korean Central News Agency announcing the launch of the "Hwasong-17" ICBM-class ballistic missile [EPA/Jiji]



FOCUS 2 “Deterrence”

Given the severe security environment described in FOCUS 1, “Deterrence” is critical for both defending Japan and creating peace

◆ Deterrence:

The ability to discourage another country from aggression.

Deterrence is essential in preventing changes to the status quo backed by force.

- It is essential for inter-state and regional stability to have the necessary defense capabilities to discourage aggression and make other states understand that they cannot invade one’s country.
- A strong alliance can bilaterally prevent aggression from other countries.
- Providing one country’s deterrence capabilities to its allies and others is called “extended deterrence.” For example, the U.S. provides Japan with extended deterrence through its various capabilities.
- A system of collective opposition (economic sanctions, military sanctions, etc.) to aggressor nations based on treaties, etc., can also serve as deterrence, and NATO is an example of this.



Examples of Japan’s deterrence efforts



In order to fully exert Japan’s defense capabilities, JSDF must continuously maintain and improve its tactical skills and response capabilities from peacetime, and training and exercise comprise one of the important elements in this regard. This will help to clearly demonstrate Japan’s strong defense posture and firm intentions to defend itself, and will serve as deterrence to discourage other countries from aggression.

Fosters Peace

Strengthening Japan's Own Architecture for National Defense

◆ Defense capabilities deter threats from reaching Japan by making opponents realize that doing harm to Japan would be difficult and consequential.

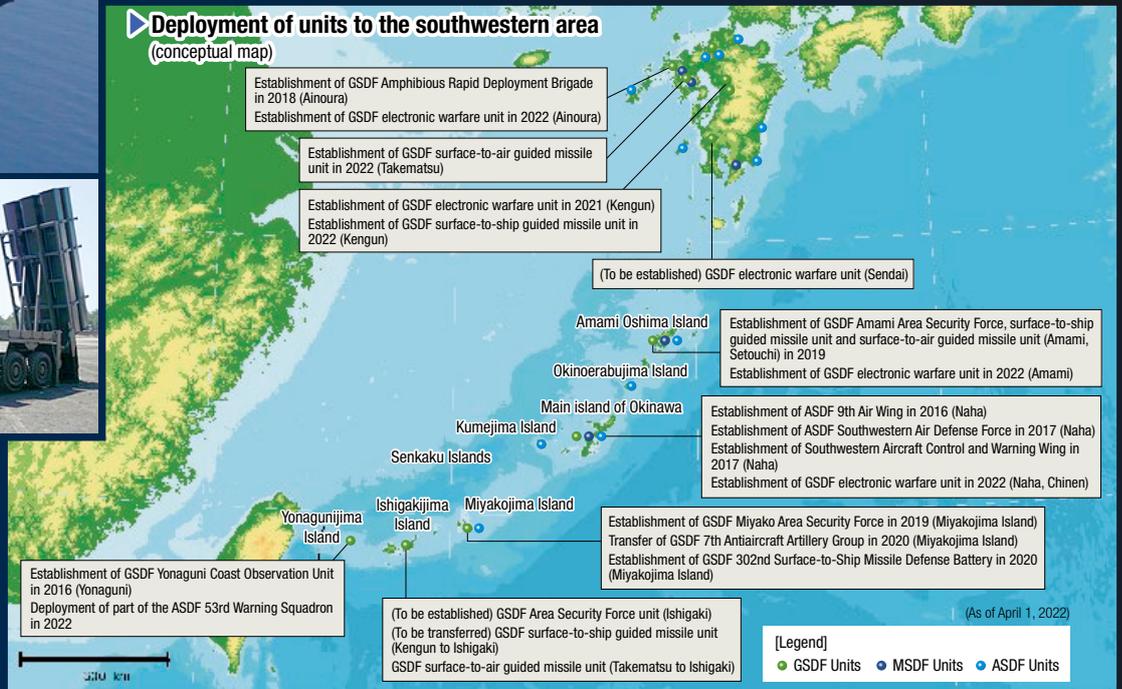


Air-to-air missile AIM-120 launched from an F-35



Type 12 surface-to-ship guided missile

In order to significantly reinforce its defense capabilities, Japan has prepared the FY2022 initial budget and the FY2021 supplementary budget together as one integrated "Defense Strengthening Acceleration Package."



Strengthening the Japan-U.S. Alliance

◆ While Japan continues to actively and autonomously reinforce its defense capabilities, it is also strengthening cooperation in a wide range of domains, including space and cyberspace, to enhance the Japan-U.S. Alliance capabilities to deter and respond.



U.S. Marine F-35B landing on the MSDF destroyer JS "Izumo"



Japan-U.S. Defense Ministerial Meeting (May 2022)

FOCUS 3

Efforts in

Efforts in the space domain

◆ Japan is fundamentally enhancing its capabilities in the space domain by reinforcing its space domain mission units, deepening cooperation with JAXA and the U.S., and promoting initiatives related to satellite constellations.

Establishment of the Space Operations Group



Promotion of training and equipment acquisition for the start of space situational awareness missions

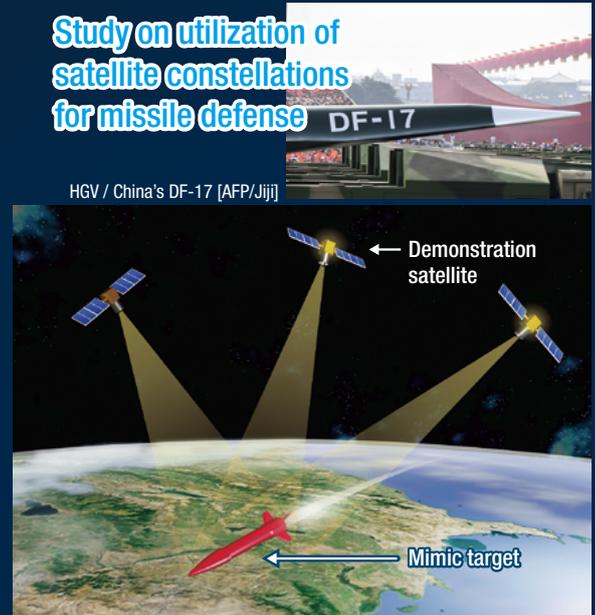
Space Situational Awareness (SSA) System to begin operations



JAXA optical telescope "Bisei" (coordination with JAXA)

MOD Space Situational Awareness Radar (image, planned to begin operating in FY2023)

Study on utilization of satellite constellations for missile defense



Demonstrative satellite device for HGV detection and satellite tracking (image)

***Satellite constellation:** Method of operating a large number of small satellites together as a system to perform various functions

***HGV:** Hypersonic glide vehicle; a hypersonic glide weapon that glides and maneuvers through the air at hypersonic speeds (Mach 5 or faster) to reach its target

Efforts in the cyber domain

◆ Japan is fundamentally enhancing its cyber defense capabilities by reinforcing specialized units, participating in practical cyber defense exercises, and conducting personnel training.

Training of future personnel for system and cyber operations



Establishment of the System/Cyber Specialized course at the GSDF High Technical School

Establishment of the SDF Cyber Defense Command



Participation in the Locked Shields exercise organized by the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE)

Holding a cyber security competition (organized by the GSDF) to strengthen cooperation with participating nations, including the U.S., France, and Australia



New Domains and Fields

Efforts in the electromagnetic domain

- ◆ Japan conducts collection and analysis of information from the electromagnetic spectrum under normal circumstances. Japan has established a system that can neutralize an opponent's use of the electromagnetic spectrum to gain an advantage in various types of operations in case of contingency.

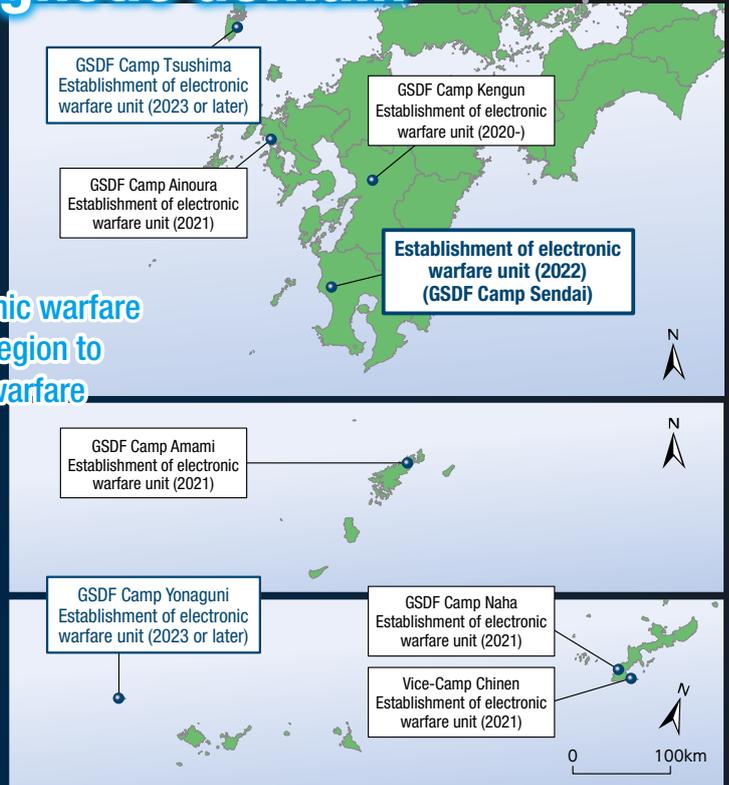


Japan will build electronic warfare units in the southwest region to enhance its electronic warfare capabilities.

Establishment of the Electronic Warfare Operations Unit



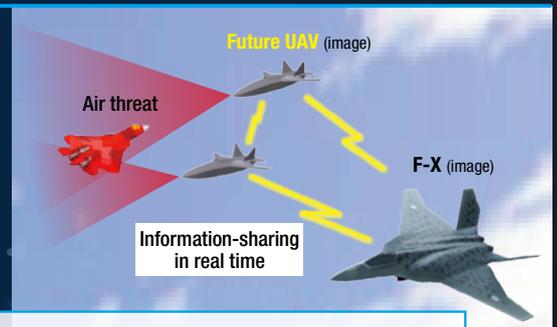
Electronic warfare unit in operation



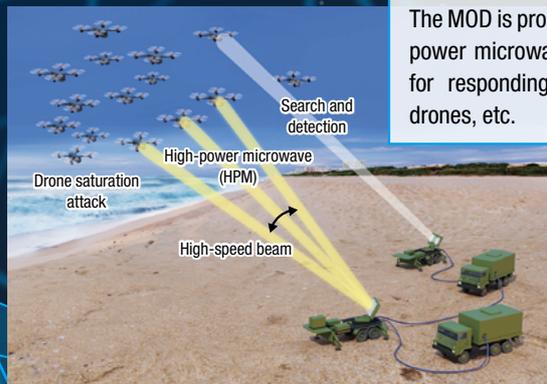
Efforts in the field of leading-edge technologies

- ◆ The MOD is promoting various initiatives to gain an edge in advanced technologies and to link them to new styles of warfare.

In order to counter threats such as hypersonic cruise missiles, the MOD is promoting research on railguns that can launch projectiles at high muzzle velocity in rapid succession using electromagnetic force.



The MOD is promoting research on teaming highly autonomous UAVs that apply artificial intelligence (AI) technology with manned aircraft such as F-X.



The MOD is promoting demonstrations of high-power microwave (HPM) related technologies for responding to saturation attacks using drones, etc.

FOCUS 4

Creation of a

“Free and Open Indo-Pacific”

◆ Japan is promoting security cooperation with other countries in order to create a desirable security environment for Japan.



See information on the MOD's initiatives related to the FOIP in nine languages.



The Indo-Pacific region is the core of the world's vitality, and home to half the world's population. Major sea lanes pass through the region. The “Free and Open Indo-Pacific” (FOIP) vision is based on the concept of ensuring the peace and prosperity of the entire Indo-Pacific region and consequently the world by realizing a free and open order based on the rule of law in the region. The FOIP is an inclusive vision. Any country can cooperate as long as it endorses the concept.

Cooperation with Partners towards Upholding and Reinforcing the FOIP

Towards upholding and reinforcing FOIP with the Japan-U.S. Alliance as its cornerstone, MOD actively cooperates with many countries that share the FOIP vision and have connections to the Indo-Pacific region, including Australia, India, European countries such as the United Kingdom, France, and Germany, as well as Canada and New Zealand.



Meeting between the Chief of Staff, Joint Staff and Germany's Inspector General of the Bundeswehr



Japan-Germany 2+2 Meeting (video conference)



The German navy frigate “Bayern” made a port call in Japan. The Chief of Staff, Joint Staff; Chief of Staff, GSDF; Chief of Staff, MSDF; and Chief of Staff, ASDF met successively with their respective German counterparts.



Telephone discussion between the Chief of Staff, GSDF, and Germany's Inspector of the Army



Meeting between the Chief of Staff, MSDF and Germany's Inspector of the Navy



Meeting between the Chief of Staff, ASDF, and Germany's Inspector of the Air Force

Countries and Regions Enhancing Cooperation towards Upholding and Reinforcing FOIP

With respect to countries and regions of the Indo-Pacific that key sea lanes pass through, such as Southeast Asian and South Asian countries, including ASEAN, and Pacific Island countries, as well as the Middle East, Africa and Latin America, which are important for ensuring energy security, Japan is bolstering cooperation towards upholding and reinforcing FOIP, while utilizing wide-ranging means of defense cooperation and exchanges.

First ministerial-level multilateral international conference held at the MOD



First-ever Japan Pacific Islands Defense Dialogue (JPIDD)



Commander of the Royal Cambodian Army visited Japan

Desirable Security Environment

Capacity building in the Indo-Pacific region

In light of the COVID-19 pandemic, capacity building was conducted using a hybrid approach, both in-person and online



Capacity building for the Philippines using ODA-donated equipment (lifesafer equipment) (HA/DR)



Participated in the "Hari Hamutuk" capacity building exercise for Timor-Leste organized by Australia



Provided advice and practical support to UNISFA participating troops on the packing of various goods



Capacity building for ASEAN nations conducted online (cybersecurity)

Major exercises in the Indo-Pacific region

* The map is for illustrative purposes.

IPD21

Departure of JS "Kaga," flagship of IPD21

Training with the People's Army of Vietnam

Large-Scale Global Exercise 2021 (LSGE21) hosted by the U.S.

GSD AH-64D (foreground) and U.S. Marine Corps' MV-22B onboard JS "Ise"

Conducted various exercises on the occasion of the U.K. aircraft carrier HMS Queen Elizabeth's visit to Japan

U.K. aircraft carrier HMS Queen Elizabeth (Jiji Press Photo)

IMED21

Goodwill exercise with the Sri Lanka Navy

Pacific Crown 21

Japan-U.S.-U.K.-Netherlands-Canada-New Zealand Multilateral Exercise

Three U.S. and U.K. aircraft carriers and JS "Ise"

La Pérouse 21

Multilateral training by the French Navy and the four countries of Japan, the U.S., Australia, and India

Malabar 21

Deepening cooperation between Japan, the U.S., Australia, and India

Kamandag 21

Bilateral training on disaster relief activities with the Philippine Marine Corps

Bilateral Training on Humanitarian Assistance and Disaster Relief (HA/DR) with the Philippine Air Force (PAF)

First bilateral training between the ASDF and the PAF

Overview

Chapter 1

Intensifying Inter-state Competition and Challenges to the Existing Order

As the balance of power changes, inter-state competition is becoming prominent across political, economic, military, and other realms. Foremost among these is the intensifying strategic competition between the U.S. and China, as well as the global issue of responding to challenges to the existing order, such as Russia's aggression against Ukraine. Such inter-state competition is constantly occurring through a variety of means, including social networks (SNS), and sometimes even through "hybrid warfare" that combines military and non-military measures.

In addition, technological advances are fundamentally changing the nature of security. Countries are focusing on developing and utilizing so-called game-changing technologies—cutting-edge technologies such as artificial intelligence (AI) and hypersonic technology—while at the same time recognizing the importance of economic security, such as preventing the outflow of such technologies. Science, technology, and innovation are at the core of intensifying inter-state competition.



U.S.-China virtual summit in September 2021 [AFP/Jiji]

Various Security Challenges Facing the Indo-Pacific Region

The Indo-Pacific region in which Japan is situated has been significantly affected by changes to the global balance of power and faces various security challenges. In particular, the tension between the U.S. and China is becoming more pronounced in Taiwan and the South China Sea.

In addition, in the Korean Peninsula, people have remained divided for more than half a century. In recent years, so called gray-zone situations have tended to persist for extended periods of time as a part of wars between nations, and have the risk of rapidly developing into more serious situations without any obvious signs.



A U.S. 7th Fleet destroyer transits through the Taiwan Strait [US NAVY]

Russia's aggression against Ukraine

Chapter 2

Unilateral Changes to the Status Quo by Force Shake the Foundation of the International Order, including Asia

Russia's aggression against Ukraine that began in February 2022 infringes upon the sovereignty and territorial integrity of Ukraine. It is a serious violation of international law prohibiting the use of force and of the UN Charter. Such unilateral changes to the status quo by force have shaken the very foundation of the whole international order, not only in Europe, but in Asia as well.

This is an unprecedented situation in which a permanent member of the UN Security Council, whose primary responsibility is maintaining international peace and security, is engaging in military actions that conflict with international law and order and is claiming the lives of innocent people. The international community, including Japan, must not tolerate this, since tolerating Russia's aggression may imply that unilateral changes to the status quo by force are acceptable in Asia and other regions.

As a result of the current aggression, it is possible that Russia's national power in the medium- to long-term may decline, and the military balance within the region and military cooperation with China may change. Furthermore, since the international situation could also be affected across the world, including developments in strategic competition between the U.S. and China and repercussions in Asia, it will be important to closely monitor related trends with intense interest.



Russian armored vehicles march in Ukraine [SPUTNIK/Jiji Press Photo]

Defense Policies of Countries

Chapter 3

U.S. Emphasis on Reinforced Competitiveness and Cooperation with Allies and Partners

The Biden administration has focused on reestablishing U.S. dominance and prevailing in strategic competition with China. In the National Defense Strategy Fact Sheet released in March 2022, the administration identified China as its most consequential strategic competitor and pacing challenge, to be addressed with the highest priority, followed by the Russia challenge.

The administration also outlined policies for reinforcing cooperation with allies and partners. In September 2021, the first face-to-face Leaders' Summit of the "Quad," consisting of Japan, the U.S., Australia, and India, was held, and AUKUS, a new security cooperation framework between Australia, the U.K., and the U.S. was established. In February 2022, the Biden administration also released its first regional strategy: the Indo-Pacific Strategy of the United States.

The FY2023 budget request announced in March 2022 emphasizes investments in integrated deterrence and other areas, while prioritizing investments in innovation including space, cyber, and AI, and modernization.



Japan-Australia-India-U.S. Summit Meeting (September 2021)
[Cabinet Public Affairs Office]

China Aims to Become a "World-Class Military" by Accelerating "Intelligentization" through Civil-Military Fusion (CMF), etc.

China is aiming to build a "world-class military" by the mid-21st century. For over 30 years, it has been growing its defense budget at high levels, engaging in rapid improvement of its military power in qualitative and quantitative terms with focus on nuclear, missile, naval and air forces. In summer 2021, China reportedly conducted a test launch of a hypersonic glide vehicle, which is considered more difficult to intercept, into low-Earth orbit. Related developments are being closely watched.

China is also believed to be aiming to build a "world-class military" by enabling "intelligentized warfare" through the use of AI and other means, by advancing as national strategy a Civil-Military Fusion (CMF) development strategy that aims to accelerate two-way transfer of military and civilian resources.

China is relentlessly continuing unilateral attempts to change the status quo by coercion near the Senkaku Islands, leading to a matter of grave concern. In October 2021, Chinese and Russian warships conducted joint sails that circled around Japan. This exercise seemed to have been intended as a show of force against Japan.

Chinese military trends, combined with insufficient transparency about China's defense policies and military affairs, have become a matter of grave concern to the region including Japan and the international community, and these trends have been intensifying in recent years.



General Secretary Xi Jinping delivers a speech during the celebration of the 100th anniversary of the founding of the Chinese Communist Party in July 2021
[China News Service/Jiji Press Photo]



Chinese navy warships (right), Russian navy warships (left), and a Z-9 helicopter onboard a Chinese navy Renhai-class destroyer (October 22, 2021)

Strategic Competition between the U.S. and China and Conflict over Taiwan

The Biden administration has positioned China as the “most serious competitor” challenging U.S. prosperity, security, and democratic values, and has made clear its stance to check China through cooperation with allies and partner countries. In addition, it has positioned economic security as national security, and is further bolstering its efforts to prevent the diversion of critical and sensitive technologies to strengthen China’s military power. In response, China has enacted a series of countermeasure laws and regulations. Such strategic competition between the U.S. and China is having far-reaching international repercussions.

Meanwhile, the conflict between the two countries is also becoming prominent over Taiwan. In April 2021, the U.S. issued “New Guidelines” to encourage interaction with Taiwanese officials, demonstrating that the U.S. is committed to accelerating U.S. involvement in Taiwan. The U.S. continues to conduct U.S. warship transits through the Taiwan Strait and arms sales to Taiwan. On the other hand, in 2021, China further increased the number of Chinese military aircraft entering the airspace southwest of Taiwan and has announced that it is conducting field training in the sea and airspace around Taiwan.

In this situation, besides the U.S., countries in Europe and elsewhere have expressed their interest and concern in peace and stability in the Taiwan Strait. Taiwan is an extremely important partner for Japan, sharing the same fundamental values such as freedom and democracy. The stability of the situation surrounding Taiwan is also critical for Japan’s security and must be closely monitored with a sense of urgency while cooperating with the international community, based on the recognition that changes to the status quo by coercion are globally shared challenges.



An F-16V (upgraded from A/B variant) fighter sold to Taiwan by the U.S. [Taiwanese Air Force]



President Tsai Ing-wen meets with visiting EU Parliament delegation [Taiwanese Ministry of Foreign Affairs]

North Korea Escalates Provocations against the International Community

North Korea is believed to already have the capability to attack Japan with ballistic missiles carrying nuclear weapons, and it continues to develop ballistic missiles at an extremely rapid pace. North Korea has launched a series of ballistic missiles with irregular trajectories and missiles that it calls “hypersonic missiles,” while diversifying its capabilities to include rail-launched and submarine-launched missiles. Therefore, North Korea is believed to be focusing on improving its capability to breach missile defense networks. In addition, especially since the beginning of 2022, while the international community has been responding to the aggression against Ukraine, North Korea has repeatedly launched ICBM-class missiles and others at an extremely high frequency, unilaterally escalating provocations against the international community.

Such military activities in North Korea pose grave and imminent threats to Japan’s security and significantly undermine the peace and security of the region and the international community. This pattern has only intensified in recent years, and may potentially lead to further provocative actions.



Image publicly released by North Korea when it announced the launch of short-range ballistic missiles from a rail-mobile launcher (September 2021) [Korea News Service/Jiji]

Russia’s Adoption of a “Strong State” Model, and the China-Russia “Strategic Alliance”

Russia, which has adopted a “strong state” model, recognizes NATO’s military and other activities in the vicinity of Russia as a threat. Having ensured that its nuclear capability rivals that of the U.S., the country has been accelerating the deployment of new weapons, such as planning the mass production and deployment of hypersonic cruise missile “Zircon” from 2022, and improving its asymmetric warfare capabilities through electronic warfare equipment and other measures. Russia had deployed Russian military forces in and around Ukraine since fall 2021, after asserting that it would not allow Ukraine and other former Soviet Union countries to become NATO members. Then, in February 2022, it launched a full-scale aggression against Ukraine.

In the vicinity of Japan, Russia has made moves to strengthen cooperation with China, such as through joint bomber flights and joint warship sails involving the Russian and Chinese militaries, as well as moves to portray such military cooperation as “strategic coordination.” These trends warrant concern and must continue to be closely watched in the future.



China-Russia summit held in February 2022 [AFP/Jiji]

Trends Concerning New Domains including Space, Cyberspace, and Electromagnetic Spectrum, and Challenges Facing the International Community

Chapter 4

Science and Technology Developments and Their Impact on Security

As technologies rapidly develop, especially those originating in the non-military sector, their impact on security is attracting attention. For example, the use of technologies such as AI will further enable unmanned combat and armed forces with fewer personnel, and may also revolutionize the accuracy and speed of decision-making. Furthermore, there are already examples of methods for disrupting other countries through diverse means other than those relying on traditional military force, such as cyber attacks. In this regard, there is a possibility that gray-zone situations will increase and expand.

Given these trends, countries are increasing their investments in research and development (R&D) to secure a technological advantage, and are focusing on developing and utilizing technologies that could become namely game-changing technologies. In addition, they are taking measures from the perspective of so-called “economic security,” such as increasing their self-sufficiency in technological development and production and making supply chains more resilient.



GJ-11 stealth unmanned combat aerial vehicle
(China's 70th anniversary military parade)
[SPUTNIK/Jiji Press Photo]

Increasing Importance of Space, Cyberspace, and Electromagnetic Domains

Space-based technologies and information and communication networks have become core infrastructures in people's everyday lives and for the military. On the other hand, China, Russia, and other countries are enhancing their capability to interfere with other countries' use of space, and these countries and their militaries are reportedly involved in cyber attacks. Thus, stable use of space and cyberspace has become an important issue for each country.

In addition, countries are working to improve their capabilities in space and cyberspace, along with their capabilities in the electromagnetic domain, under the recognition that these capabilities are methods of warfare that effectively deter enemies from demonstrating their war potential.



Russia's "Palantin" electronic warfare system
[Ministry of Defence of the Russian Federation]

Climate Change Requires Response from the International Community

In recent years, there has been a recognition of the various effects of climate change on security. For example, it has been pointed out that climate change could undermine the stability of politically and economically vulnerable nations, which would increase the need for international assistance, including military operations, for these destabilized nations.

Climate change, which is also described as a “threat multiplier,” thus requires a collective response from the international community.



Leaders Summit on Climate hosted by the U.S. (April 2021) [NATO]

Basic Concepts of Japan's Security and Defense

Chapter 1

Defense Capabilities Protect Japan's Independence, Peace, and Security

Peace and security are essential for Japanese people to live with a sense of safety and for Japan to continue to prosper, but simply wishing for these things is not enough to guarantee them.

Therefore, Japan ensures its peace and security by strengthening the Japan-U.S. alliance as well as its own defense capabilities, and by developing a seamless defense posture. Moreover, from the perspective of preventing the emergence of threats to Japan, the importance of the role played by defense capabilities is increasing in cooperative efforts in the Indo-Pacific region.

Recognizing the role of such defense capabilities, Japan ensures its peace and security by exerting efforts in a variety of fields, including diplomacy and the economy.

In addition, based on its Constitution, Japan has efficiently built a highly effective, integrated defense force in line with the basic principles of maintaining an exclusively defense-oriented policy and not becoming a military power that poses a threat to other countries, while firmly maintaining the Japan-U.S. Security Arrangements, adhering to the principle of civilian control of the military, and observing the Three Non-Nuclear Principles.



Prime Minister Kishida reviewing units at the FY2021 Troop Review for the Anniversary of the Establishment of the Self-Defense Forces

Japan's Security and Defense Policy

Chapter 2

Discussion of All Options for the Development of a New National Security Policy, etc.

The main documents pertaining to Japan's national security are the National Security Strategy (NSS), the National Defense Program Guidelines (NDPG), and the Medium Term Defense Program (MTDP).

In January 2022, Prime Minister Kishida Fumio announced that these documents were going to be newly formulated over the year, and they are currently under discussion among the relevant ministers. The Ministry of Defense (the MOD) established the Defense Strengthening Acceleration Council, chaired by the Minister of Defense. The Council discusses all manners of options to protect Japan's territory, territorial waters, territorial airspace, and the lives and property of its people.

The current NDPG and MTDP, which were formulated in 2018, call for the establishment of a "Multi-Domain Defense Force" that will enable cross-domain operations, including space, cyber and electromagnetic spectrum, as well as flexible and strategic operations at all stages ranging from peacetime to contingencies.



Defense Minister Kishi chairing a "Defense Strengthening Acceleration Council"

Organizations Responsible for Japan's Security and Defense

Chapter 3

The MOD and the Self-Defense Forces (the SDF) develop policies and execute missions based on the fundamental stance discussed at the National Security Council, which is a part of the Cabinet.

In addition, the MOD and the SDF employ an integrated operation system that operates the Ground, Maritime, and Air Self-Defense Forces in an integrated manner, and are working to build a system that can implement cross-domain operations, including operations in new domains such as space, cyber, and electromagnetic spectrum.



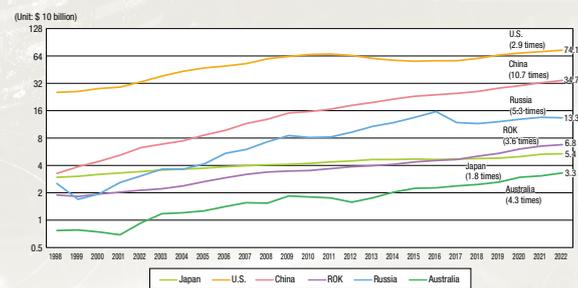
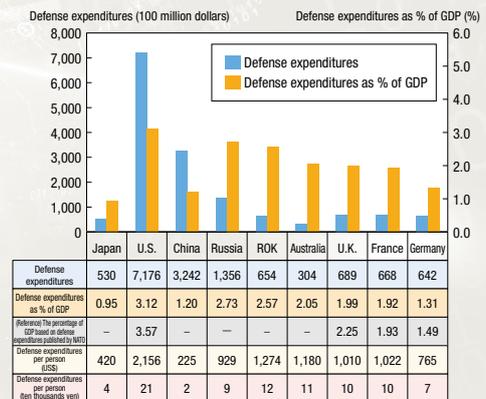
Build-up of Defense Capability, etc.

Chapter 4

Accelerating the Reinforcement of Defense Capability

Given a situation in which the security environment around Japan is growing increasingly severe at an unprecedented pace, Japan needs to dramatically reinforce its defense capabilities. In order to do so, it has prepared the FY2022 annual budget and the FY2021 supplementary budget together as one integrated "Defense-Strengthening Acceleration Package." In addition, in order to secure technological superiority, Japan has decided to significantly increase investment in potentially game-changing technologies, and has increased R&D expenditure to a record high. The FY2022 annual budget is 5.1788 trillion yen, up 55.3 billion yen (1.1%) from the previous year, or 5.4005 trillion yen if funds related to the realignment of U.S. forces are included. Japan's defense expenditures have set a record for ten consecutive years.

It is not possible to accurately compare the amounts of defense expenditures of countries due to a number of factors: there is no internationally unified definition of defense expenditures in the first place; even if defense expenditures were publicly disclosed, their overall amount or their breakdown is sometimes unclear; and the budget system varies by country. On such basis, if Japan's defense-related expenditures are compared to the defense expenditures officially published by other countries, Japan has the lowest ratio of defense expenditures to GDP when compared to the G7 countries, Australia, and the Republic of Korea (ROK). In addition, Australia, the ROK, the U.K., France, and Germany all spend about two to three times as much on defense expenditure per person as Japan.



Framework for Activities of the SDF and Others

Chapter 5

The 2015 Legislation for Peace and Security defined new situations to be addressed, such as "Survival-Threatening Situations" and "Situations that Will Have an Important Influence," enabling seamless response to any situation. The Government of Japan will continue to take all possible measures to respond to such situations.

In addition, based on experiences such as the evacuation of Japanese nationals from Afghanistan in August 2021, the Self Defense Forces law was amended in 2022 to remove the limitation that, in principle, the means of transportation must be a government aircraft, to change the safety requirements, and to expand the scope of evacuees.

Japan's Own Architecture for National Defense

Chapter 1

Irreplaceable Role of Defense Capability

Defense capability is the ultimate guarantor of Japan's national security. Defense capability represents Japan's will and ability: to deter threat from reaching Japan; to eliminate a threat should the threat reach Japan; and to defend to the end Japanese nationals' lives, persons and property as well as territorial land, waters and airspace as a sovereign nation, by exerting efforts on its own accord and initiative. In this sense, defense capability is not something that can be replaced by any other means.

In light of the increasingly severe and uncertain security environment surrounding Japan, Japan will build a Multi-Domain Defense Force as a truly effective defense capability. The Multi-Domain Defense Force will ensure the defense of the nation through cross-domain operations that organically integrate capabilities in all domains, including space, cyberspace and electromagnetic spectrum, generating synergy and amplifying overall capabilities, while at the same time enabling sustained conduct of flexible and strategic activities during all phases from peacetime to contingencies.

In addition, joint operations are extremely important for the SDF to coordinate organically and carry out its missions quickly and effectively.



Japan's Own Architecture for National Defense



Japan-U.S. Alliance



Security Cooperation

Defense architecture (three pillars)

Response from Peacetime to Gray Zone Situations

In order to protect the peace and independence of Japan, the SDF has always been calmly dealing with acts that infringe Japan's sovereignty. As part of these efforts, the SDF conducts constant and continuous intelligence gathering, surveillance, and reconnaissance activities across the broad area surrounding Japan while striving to prevent the occurrence or escalation of situations by flexibly selecting deterrence measures and other approaches. During peacetime, the SDF conducts intelligence gathering and surveillance in Japan's territorial waters and airspace, as well as scrambles.



Maritime Self-Defense Force (MSDF) patrol aircraft conducting surveillance missions

Defense of Japan including its Remote Islands

Japan possesses numerous remote islands, and it must position SDF units that suit the security environment and deploy them according to the situation in order to defend Japanese nationals' lives and property, as well as its territory, and other various resources. If signs of a threat are detected, the SDF will maneuver and deploy units to areas expected to be invaded to block access and landing of invading forces.

Should any part of our territory be occupied, the SDF will retake it by employing all necessary measures to suppress the enemy with attacks from aircraft and vessels, and then the landing of GSDF forces.



Training for the defense of remote islands

of Achieving Defense Objectives)

Responses in the Domains of Space, Cyberspace and Electromagnetic Spectrum

The SDF will prevent interference with its activities in the space, cyberspace, and electromagnetic domains and promptly limit the extent of damage when such situations occur. In case of armed attack against Japan, the SDF will block and eliminate the attack by leveraging capabilities in space, cyber and electromagnetic domains.

With regard to the space domain, the MOD/SDF is building a space situational awareness system to ensure stable use of space and is improving its capability to gather information using the space domain. In the cyber domain, the SDF is implementing measures such as ensuring the safety of information systems and dealing with cyber attacks via specialized units. In the electromagnetic domain, the SDF is working to reinforce management, coordination, and information-gathering functions related to the electromagnetic spectrum.



SDF personnel engaging in space-related training

Response to Large-Scale Disasters

When disasters occur, the SDF works in collaboration with local governments, engaging in various activities such as the search and rescue of disaster victims, ships, or aircraft in distress, and medical treatment. In addition, the SDF carries out missions to evacuate Japanese nationals and others overseas.



SDF personnel engaging in life-saving activities

SDF Activities since Enforcement of Legislation for Peace and Security

Since the enforcement of Legislation for Peace and Security in 2016, various forms of preparation and trainings related to this legislation have been implemented. As an example of actual missions related to this, the SDF has provided asset protection for the U.S. Forces and other units in accordance with Article 95-2 of the Self-Defense Forces Law. In 2021, the SDF provided asset protection for the Australian Defence Force for the first time.

Japan-U.S. Alliance

Chapter 2

Japan-U.S. Security Arrangements as a Cornerstone for Japan's Security

The Japan-U.S. Security Arrangements based on the Japan-U.S. Security Treaty, together with Japan's own national defense architecture, constitute a cornerstone for Japan's national security. The Japan-U.S. Alliance, with the Japan-U.S. Security Arrangements as its core, plays a significant role for peace, stability and prosperity of not only Japan but also the Indo-Pacific region and the international community.

In order to ensure Japan's peace, security, and sovereignty within the current international community, Japan has maintained its peace and security, centered on the security arrangements with the world's dominant military power, the United States, with which it has strong economic ties and shares basic values such as democracy, respect for human rights, the rule of law, and a capitalist economy, as well as interests in maintaining the peace and security of the world.



Japan-U.S. Defense Ministerial Meeting (May 2022)

The NDPG states that, in order to enhance the ability of the Japan-U.S. Alliance capabilities to deter and respond, Japan will take all necessary measures to ensure Japan's peace and security in all stages from peacetime to contingencies as well as during disasters. For these purposes, Japan will further enhance various operational cooperation and policy coordination with the United States.

In particular, Japan will expand and deepen cooperation in: space and cyber domains; comprehensive air and missile defense; bilateral training and exercises; bilateral ISR activities; and bilateral flexible deterrent options. Japan will also promote the development and update of bilateral plans and deepen the Extended Deterrence Dialogue.

Furthermore, in order to create a desirable security environment including maintaining and enhancing a free and open maritime order, and with an eye on increasing the Japanese and U.S. presence in the Indo-Pacific region, Japan and the United States are conducting Japan-U.S. bilateral activities, such as defense equipment and technology cooperation, expansion of joint/shared use of U.S. and Japanese facilities and areas, and during this fiscal year, verification of F-35B take-off and landing to the MSDF's destroyer JS "Izumo."

While the presence of USFJ serves as deterrence, it is necessary to consider impacts of the stationing of the USFJ on living environments of the local residents and to make efforts in mitigating impacts in a way that applies to the circumstances of each region. In particular, the realignment of the USFJ is an extremely important initiative to mitigate the impacts on local communities, including those in Okinawa, while maintaining the deterrent capabilities of the U.S. Forces. Therefore, the MOD is advancing the realignment and making continued efforts to gain the understanding and cooperation of the local communities which host USFJ facilities and areas.



Japan-U.S. bilateral joint exercise (Keen Edge 22)



Verification of F-35B take-off and landing on the MSDF Destroyer JS "Izumo"

Security Cooperation

Chapter 3

Strategic Promotion of Multi-Faceted and Multi-Layered Defense Cooperation

The MOD/SDF are promoting bilateral and multilateral defense cooperation and exchanges under the vision of a Free and Open Indo-Pacific (FOIP). The MOD has shared serious concern about the situations in the East and South China Seas with these countries, issuing clear messages to strongly oppose unilateral changes to the status quo by coercion and such attempts to create faits accomplis.

With respect to Southeast Asia, South Asia, Pacific Island countries, the Middle East, Africa, and Latin American countries, the MOD/SDF will enhance cooperation to uphold and reinforce FOIP, utilizing a wide range of means for defense cooperation and exchanges, including cooperation and exchange of personnel, cooperation and exchange of troops, capacity building cooperation, and defense equipment and technology cooperation.

The United States, Japan's ally, and Australia, India, as well as the United Kingdom, France, Germany, and other European countries, Canada, and New Zealand, are countries that not only share fundamental values with Japan, but also have geographic and historical ties to the Indo-Pacific region. The MOD/SDF has been encouraging these countries to



High-level exchange (Japan-U.K. Defense Ministerial Meeting)

of Achieving Defense Objectives)

become more involved in the Indo-Pacific region while promoting defense cooperation and exchanges, so that greater impact can be achieved when working together as partners in the region than could be achieved through unilateral efforts by Japan.

In the space and cyber domains, the MOD/SDF is also reinforcing coordination and cooperation with concerned countries through information-sharing, discussions, exercises, and capacity-building, in order to quickly gain superiority and establish international norms in these domains.

Ensuring Maritime Security

Ensuring the safety of maritime traffic is fundamental to the peace and prosperity of Japan. The SDF has been dispatching the Deployment Surface Force for Counter Piracy Enforcement and the Deployment Air Force for Counter Piracy Enforcement since 2009 in order to protect vessels from acts of piracy in the waters off the coast of Somalia and in the Gulf of Aden.

Initiatives for Arms Control, Disarmament and Non-Proliferation

Japan also actively participates in international initiatives for arms control, disarmament, and non-proliferation pertaining to WMDs, missiles that can deliver them, conventional arms, and goods and sensitive technologies that can be delivered to military use.

Efforts to Support International Peace Cooperation Activities

The MOD/SDF has been proactively undertaking international peace cooperation activities working in tandem with diplomatic initiatives, including the use of the Official Development Assistance (ODA) for resolving the fundamental causes of conflicts, terrorism and other problems. It has been 30 years since the International Peace Act was enacted.

As a part of its international peace cooperation, the MOD/SDF has dispatched headquarters personnel to Multinational Force and Observers Mission (MFO; Sinai Peninsula, Egypt) and the United Nations Mission in South Sudan (UNMISS). In addition, SDF personnel and civilians have been continually dispatched to the UN Secretariat.

The MOD/SDF has also been carrying out international disaster relief operations from the perspectives of making humanitarian contributions and improving the global security environment. In January 2022, the SDF transported disaster relief supplies to the Kingdom of Tonga, which had been suffering from the damage of a large-scale volcanic eruption.



Capacity building (Papua New Guinea)



SDF personnel engaging in operations of UNMISS



International disaster relief for Tonga

Measures Relating to Training and Exercises

Chapter 1

Training to Enhance the Deterrence and Response Capability

In order to fulfill its severe mission of defending Japan, the SDF has been continuously conducting joint training and various types of training involving the GSDF, MSDF, and ASDF from peacetime. These exercises range over not only traditional domains, but also new domains including space, cyberspace and electromagnetic spectrum. The SDF has been making efforts to improve cross-domain operations in order to successfully utilize these domains and enhance defense capabilities.

In addition, in order to enhance the deterrence and response capabilities of the Japan-U.S. Alliance, each service of the SDF conducts bilateral/multilateral training with the corresponding U.S. military branch, as well as Japan-U.S. bilateral joint exercises, deepening the content year after year.

Furthermore, in order to strategically promote multi-faceted and multi-layered defense cooperation based on the vision of a Free and Open Indo-Pacific (FOIP), the SDF is actively engaged in bilateral training and exercises with allies and friendly nations in the broad Indo-Pacific region.

In order to protect Japan's peace and sovereignty in an increasingly severe security environment, the SDF must become more powerful on its own while improving its ability to coordinate with allies and partners. For this reason, the SDF is not content with its current deterrence and response capabilities and is working to acquire further deterrence and response capabilities.

Training to Strengthen Partnerships

The MOD/SDF recognize that it is indispensable for our eternal peace to stabilize the security environment surrounding Japan while reinforcing its deterrence and response capabilities. Based on such recognition, the MOD/SDF is actively promoting bilateral/multilateral training with allies and partners in the broad Indo-Pacific region. Through strengthening such partnerships, the MOD/SDF is working to enhance cooperation in order to respond to global security challenges and destabilizing factors, which are difficult for one nation to overcome individually.



A GSD amphibious vehicle departs from the MSDF Landing Ship JS "Osumi" (SDF joint exercise)



Japanese and U.S. commanders converse at the start of an exercise (Japan-U.S. Bilateral Regional Army command post exercise (YS-81))



Flight training by Japanese, U.S., and Australian fighters (multilateral exercise Cope North 22)



Three U.S. and U.K. aircraft carriers with the MSDF destroyer JS "Ise" (Japan-U.S.-U.K.-Netherlands-Canada-New Zealand multilateral exercise)

Capability, etc.

Reinforcing the Human Resource Base and Intellectual Base

Chapter 2

Self-Defense Forces Personnel Are a Core Element of Defense Capability (Reinforcing the Human Resource Base)

The core element of defense capability is Self-Defense Forces (SDF) personnel, and securing human resources for SDF personnel and improving their ability and morale are essential to strengthen defense capability. This has become an imminent challenge in the face of Japan's shrinking and aging population with a declining birthrate. From the perspective of the sustainability and resilience of defense capability, the MOD/SDF is working on measures to recruit/employ, train and effectively utilize existing human resources of the SDF personnel. The MOD/SDF is also actively promoting work-life balance and the participation of women.



Active participation of female SDF personnel
(in the midst of basic amphibious vehicle training)

Powering Future Defense Policy (Reinforcing Intellectual Infrastructure)

In order to promote public understanding of security and crisis management, the MOD's research and educational institutes are further improving research quality on a day-to-day basis and are reflecting the results in Japan's policymaking.

Based on the results of such research, further promoting public understanding of knowledge and information about Japan's national security policies has become critical. For this reason, the MOD is reinforcing the research teams at the National Institute for Defense Studies (NIDS) and other research institutes.



National Institute for Defense Studies

Enhancement of Medical Functions

Chapter 3

Protecting the Lives of Self-Defense Forces Personnel as Much as Possible

For the MOD/SDF to perform its mission, it is necessary to appropriately manage the health of their personnel and ensure they remain in good health. The MOD/SDF is working steadfastly to enhance and strengthen their capabilities in military medicine to maximize the protection of the lives of personnel who respond to a variety of situations.

For this reason, the MOD/SDF has decided to strengthen the medical treatment and evacuation posture, which operates seamlessly from the frontline to final evacuation destination, and is working on developing SDF hospitals into medical hubs and enhancing their functionality. In FY2021, the SDF Iruma Hospital opened as part of these efforts.

As the SDF's missions become more diverse and internationalized, the SDF aims to appropriately meet the needs of various medical activities, such as medical support in disaster relief and international peacekeeping activities, and capacity building in the medical field. In order to strengthen the human infrastructure that forms the foundation of SDF medical services, the SDF is reinforcing the functions of the National Defense Medical College and securing and training medical and nursing personnel.

Meanwhile, as part of measures against the coronavirus disease (COVID-19) in Japan, the SDF not only accepted patients at SDF hospitals, but also set up and managed SDF large-scale vaccination centers in Tokyo and Osaka from May to November 2021 and has opened SDF vaccination sites from January 2022, in order to accelerate COVID-19 vaccinations.



SDF Iruma Hospital



Personnel working at a SDF large-scale vaccination center

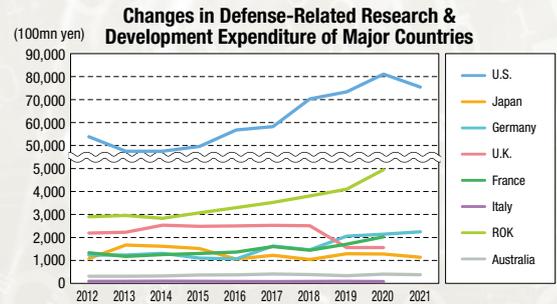
Measures on Defense Equipment and Technology

Chapter 4

Advances in Technology That Are Changing the Future Combat Landscape

Military technologies in recent years are showing remarkable advances. Against the backdrop of such technological advances, contemporary warfare increasingly features capabilities combined across all domains: not only land, sea and air but also new domains, such as space, cyberspace and electromagnetic spectrum. Aiming to improve overall military capability, states are seeking to gain superiority in technologies that undergird capabilities in these new domains.

Countries are expending large amounts of R&D funds to develop and research weapons that utilize potentially game-changing, cutting-edge technologies such as AI (artificial intelligence), and are working on their early operationalization. Further technological innovations in quantum technology and information and communications technology (ICT), including the 5th generation mobile communication system (5G), will make it even more difficult to forecast future warfare.



Source: "OECD: Main Science and Technology Indicators"

Notes: 1. For the calculation of Defense-Related Research & Development Expenditure of Major Countries, the ratio of research & development expenditure to defense expenditure of major countries from the "OECD: Main Science and Technology Indicators" data was used. However Chinese data was not published.
2. The figures are from statistics of the OECD. Special attention is needed when comparing various countries only with this data, because their definitions may vary in each country.

Status of Research & Development in Japan and Future Focus

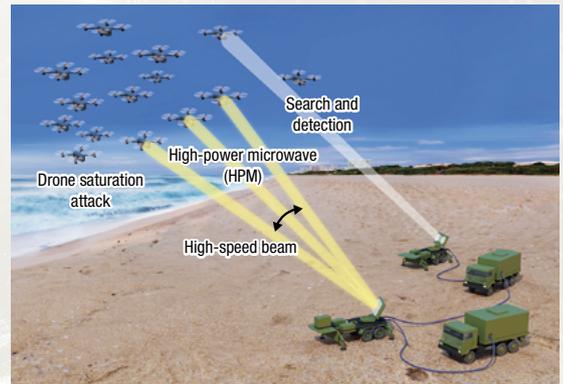
Imports of foreign-made equipment remain at a high level as equipment has become more sophisticated and complex. In addition, introducing equipment whose unit costs have skyrocketed as a result of increasingly sophisticated technology has led to a decline in procurement volume from domestic companies, despite the increased spending on domestic procurement in recent years. For these reasons, Japan's defense industry and technology infrastructure are under severe pressure.

Under these circumstances, in order to secure "quality" and "quantity" of defense capabilities necessary and sufficient for building a Multi-Domain Defense capability, it is essential to 1) effectively and rationally review the equipment structure from the perspective of integrated operations, including manpower saving and automation; 2) strengthen the technology base through strategic initiatives, promotion of R&D, and active utilization of civilian technologies, in order to ensure Japan's technological edge; 3) optimize equipment procurement to contribute to more efficient acquisition of equipment and a structured management system, in response to the trend of rising costs due to increasingly sophisticated and complex equipment; 4) increase the resilience of the industrial base to ensure production of high-performance equipment and high operational availability; and 5) engage in defense equipment and technology cooperation based on the Three Principles on Transfer of Defense Equipment and Technology.

In tandem with efforts 1) through 5), it is extremely important for the MOD to actively cooperate in 6) economic security that the Japanese government as a whole is intensively promoting with security expertise from the perspective of enhancing the autonomy of Japan's economy, the superiority of Japan's technologies over other countries, and eventually the indispensability to the international community.

Provision of Equipment and Goods to Ukraine

In response to the Russia's aggression against Ukraine, and based on a request from the Ukrainian government, Japan provided non-lethal equipment and goods to Ukraine based on the Self-Defense Forces Law and within the scope of the Three Principles on Transfer of Defense Equipment and Technology.



R&D involving cutting-edge technology (HPM irradiation technology)



Development of Type 12 Surface-to-Ship Missile (Upgraded) [Nagoya Guidance & Propulsion Systems Works, Mitsubishi Heavy Industries, Ltd.]

Enhancing Intelligence Capabilities

Chapter 5

Efforts to Promptly Gather Various Types of Intelligence, etc.

For formulating defense policy accurately in response to the changes in the situation and for operating defense capabilities effectively in dealing with various situations, it is essential to grasp medium- to long-term military trends in the neighboring countries of Japan and detect the indications of various situations promptly.

To achieve this, the MOD is gathering the following types of intelligence.

- (1) Collecting, processing, and analyzing military communication radio waves, electronic weapons, and other radio waves transmitted in the airspace over Japan
- (2) Collecting, processing, and analyzing of image data from various satellites
- (3) Warning and surveillance by warships and aircraft
- (4) Collection and organization of various types of published information
- (5) Information exchange with defense agencies and other organizations in various countries
- (6) Intelligence-gathering by defense attachés

As of April 1, 2022, 73 defense attachés have been dispatched to 86 embassies and 6 missions and delegations.



Defense attaché working in Ukraine

Initiatives to Live in Harmony with Regional Society and the Environment

Chapter 6

Harmony with Regional Society

The various activities of the MOD/SDF are hard to implement without the understanding and cooperation of each and every person, as well as local governments and other organizations. Based on this idea, the MOD/SDF will continue to promote various measures necessary in order to further deepen the trust between regional society and people, and the SDF.

Efforts to Address Environmental Issues

The MOD/SDF have consistently complied with environmental laws and regulations and have made efforts to thoroughly protect the environment and reduce environmental impact, and are promoting further environmental initiatives. In May 2021, the MOD established the MOD Climate Change Taskforce, chaired by the State Minister of Defense, to evaluate and analyze the impact of climate change on Japan's security and extensively study how the MOD can fulfill its assigned missions and roles. Going forward, the Taskforce will compile a strategy document for the MOD.

Public Relations Activities

In order to gain the trust and the cooperation from the Japanese people and other countries, the MOD/SDF strives to be proactive in undertaking easily comprehensible public relations activities regarding its operations in various ways.

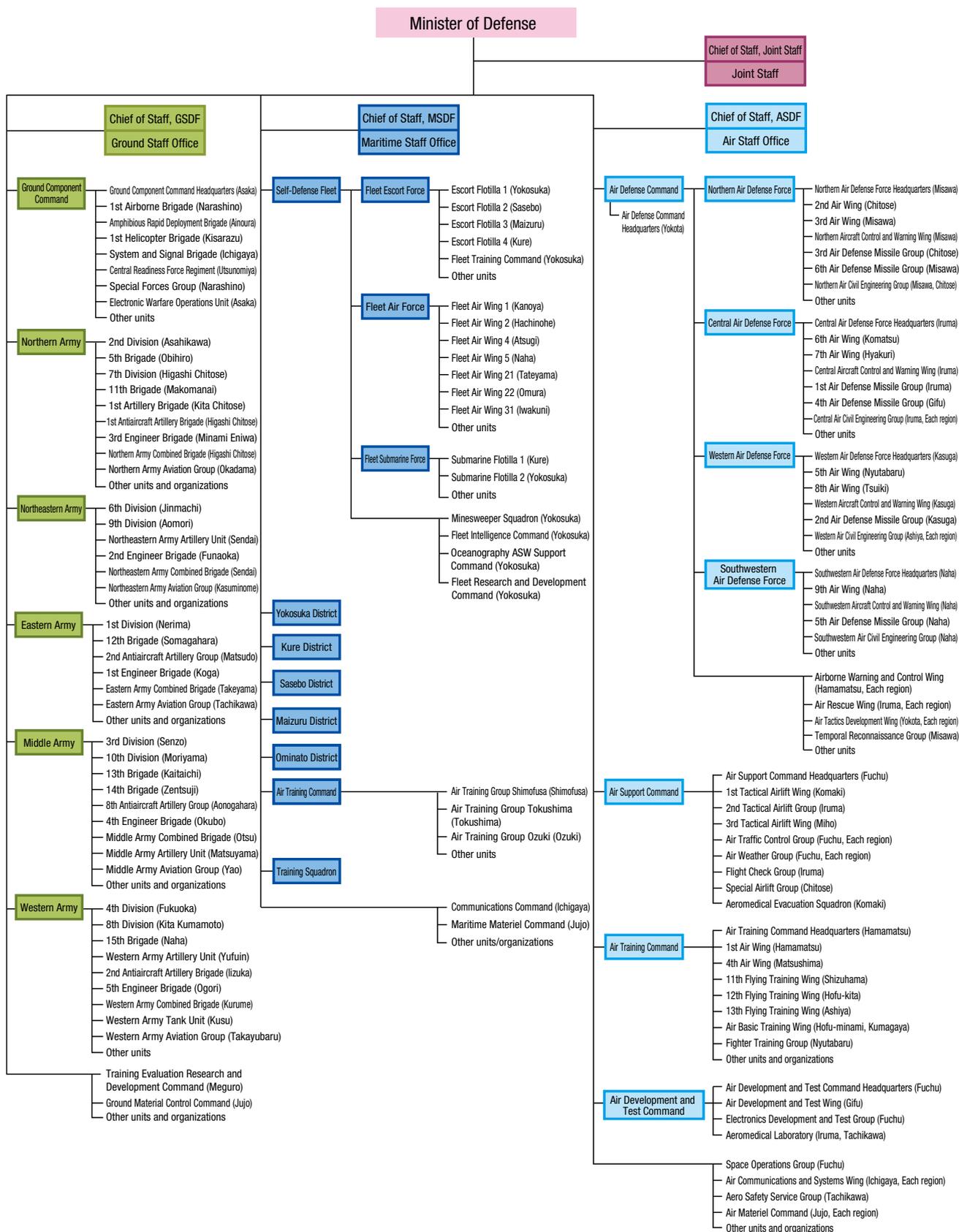


MOD emblem symbolizing cooperation between the MOD and regional society

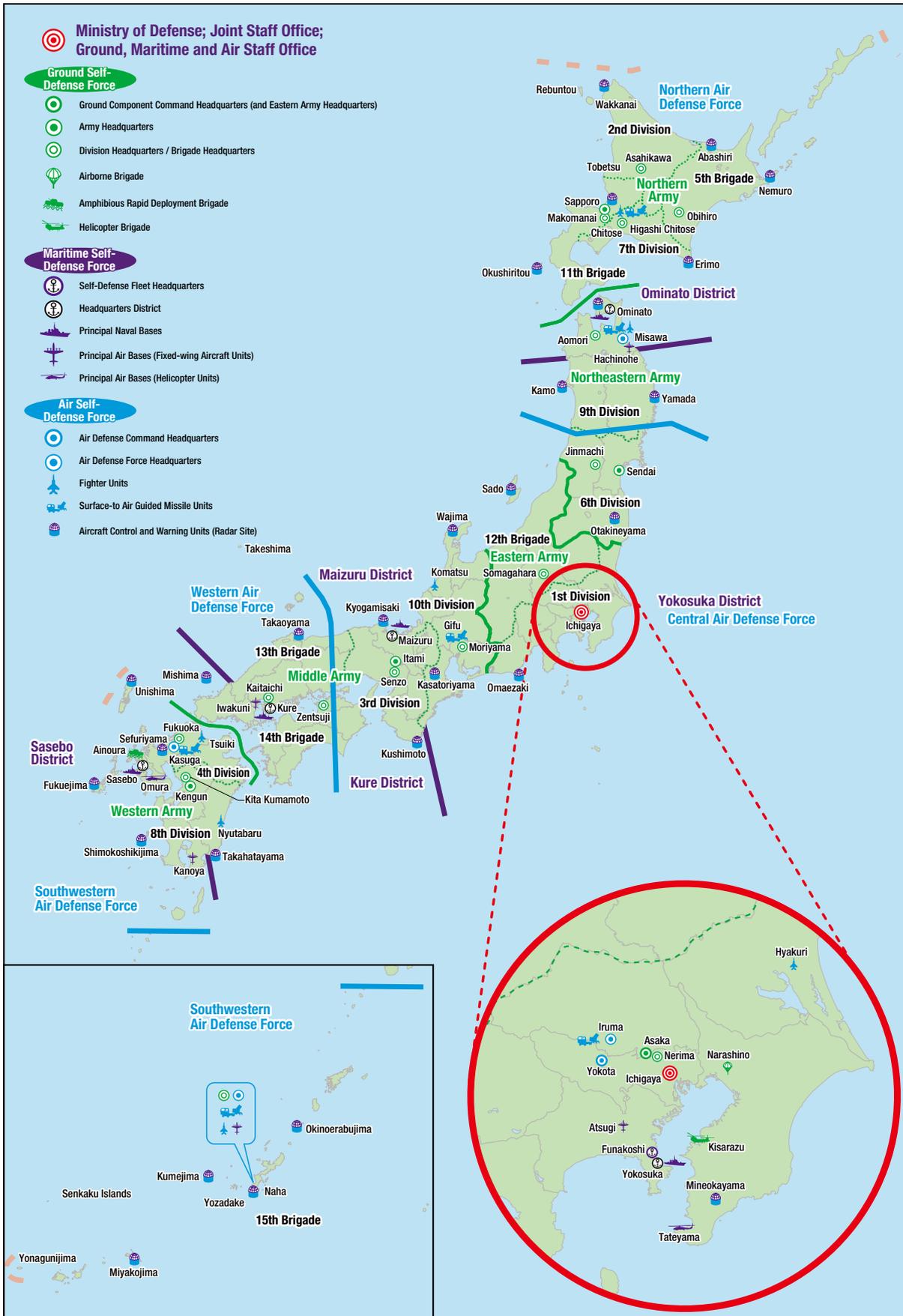


A discussion by the Climate Change Taskforce

Organizational Diagram of the Self-Defense Forces



Location of Principal SDF Units [for illustrative purposes] [As of March 31, 2022]



Part

I

Security Environment Surrounding Japan

Chapter 1

Overview

Chapter 2

Russia's Aggression against Ukraine

Chapter 3

Defense Policies of Countries

Chapter 4

**Trends Concerning New Domains including
Outer Space, Cyberspace, and Electromagnetic
Spectrum, and Relevant Challenges Facing the
International Community**

1 Current Trends in Security Environment

What is notable about the current security environment is that, first of all, while interdependency among countries is further expanding and deepening, due to further growth of the national power of countries such as China, changes in the balance of power are accelerating and becoming more complex. In addition, uncertainty over the existing order is increasing. Against such a backdrop, prominently emerging is inter-state competition across the political, economic, military and other realms, in which states seek to shape global and regional order to their advantage as well as to increase their influence. Amidst this, strategic competition between the United States and China is further intensifying and becoming apparent in issues concerning trade, Taiwan, the South China Sea, and human rights. Responding to challenges to the existing order such as Russia's aggression against Ukraine is becoming a global issue.

Such inter-state competition occurs on a continuous basis. In conducting inter-state competition, states leverage various means such as undermining another country's sovereignty using military and law-enforcement entities, and manipulating a foreign country's public opinion by exploiting social media to disinform. In such competition, so-called "hybrid warfare" combining both military and non-military means is sometimes adopted, forcing affected actors

to take complex measures not limited to military ones. Also, so-called **gray-zone situations**, which are neither purely peacetime nor contingency situations, are becoming persistent over a long period of time, playing out as part of inter-state competition. They may possibly further increase and expand.

Secondly, technological progress is about to change fundamentally how security should be managed. Against the backdrop of the advance of military technology due to rapid technological innovation in information & communications and other fields, contemporary warfare increasingly features capabilities combined across all domains: not only land, sea and air but also new domains, which are space, cyberspace and electromagnetic spectrum.

Various states endeavor to develop and utilize cutting-edge, potentially game-changing technologies that could drastically change the future aspects of warfare, including artificial intelligence (AI), hypersonic, and high-power energy technologies. In particular, the development and introduction of unmanned and AI assets, coupled with the advancement and proliferation of technology, may lead to fundamental changes in the structure and fighting style of traditional military forces.

In addition, science, technology, and innovation are at the core of intensifying inter-state competition as nations

KEY WORD

"Gray-Zone Situations" and "Hybrid Warfare"

The so-called gray-zone situations simply represent a wide range of situations that are neither peacetime nor wartime.

In a gray-zone situation, for example, a country that confronts another over territory, sovereignty or maritime and other economic interests uses some forceful organization to demonstrate its presence in the relevant disputed region in a bid to alter the status quo or force other countries to accept its assertions or demands.

The so-called "hybrid warfare" represents methods intentionally blurring the boundaries between the military and non-military realms, forcing affected actors to take complex measures that are not limited to military actions.

The means of hybrid warfare include operations using military units of unidentified nationality, cyber attacks to affect communications and other critical infrastructure, the spread of false information through the internet and the media, and other influential operations. The combination of these measures is considered as amounting to hybrid warfare. In hybrid warfare, a country takes measures that are difficult to identify definitively as an "armed attack" based on its outward appearance. It is said that such an approach is taken with an intent to make it difficult for the target country to address the situation, such as delaying the military's initial response, while denying the attacker country's own involvement.

recognize the importance of economic security, work to prevent the outflow of advanced technologies, strengthen export controls, and make supply chains more resilient.

Thirdly, security challenges, which cannot be dealt with by a single country alone, are increasing.

First of all, securing the stable use of new domains such as space and cyberspace has become an important challenge for the security of the international community. In recent years, countries are moving ahead with a reinforcement of their comprehensive ability to combat cyberattacks. In the maritime domain, there have been cases where a country unilaterally claims its entitlement and takes actions based on its own assertions that are incompatible with the existing international order, thereby unduly infringing upon the freedom of navigation in high seas and of overflight.

The proliferation of weapons of mass destruction (WMDs), such as nuclear, biological, and chemical (NBC) weapons, and of ballistic missiles that serve as the means of delivery of WMDs, and international terrorism are still viewed as significant threats to the international community.

Furthermore, the perception that climate change can influence security environment and military activities in various ways is rapidly being shared within the international society.

In addition, in response to the COVID-19 pandemic

that emerged in China, since the end of 2019, respective countries have been utilizing their medical organizations and militaries to deal with the infections and promote vaccinations. In the meantime, positive COVID-19 cases were identified within the military forces of those countries, leading to the situation in which military training or bilateral/multilateral exercises became suspended or postponed, and the infection has brought about diverse impacts and restrictions to military activities.

Regarding the COVID-19 pandemic, it is pointed out that there have been moves of some countries intending to create international and regional orders more preferable to themselves and to expand their influence, such as spreading disinformation and other propaganda efforts in various manners and conducting so-called “vaccine diplomacy.” For example, it has been pointed out that Russia and China’s so-called “vaccine diplomacy,” involving publicizing and providing domestically developed vaccines to various countries, is linked to disinformation and falsification activities aimed at damaging the trust placed in vaccines made by Europe, the U.S. and other countries.¹ As these situations suggest, going forward, it is expected that strategic competition among countries will be further intensified over the responses to COVID-19 infections. We need to continue to closely watch such moves with great concern as security issues.

2 Regional Security Environment Surrounding Japan

Nations and regions with strong military power are concentrated in Japan’s surroundings, where clear trends such as further military buildup and an increase in military activities are observed.

States in the Indo-Pacific region, including Japan, abound in political, economic, ethnic, and religious diversity. Also, each country has different security views and threats perceptions. Therefore, a regional cooperation framework in the security realm has not been sufficiently institutionalized, and longstanding issues of territorial rights and reunification in this region continue to remain.

In the Korean Peninsula, the Korean people have been divided for more than half a century, and the faceoff continues between the military forces of the

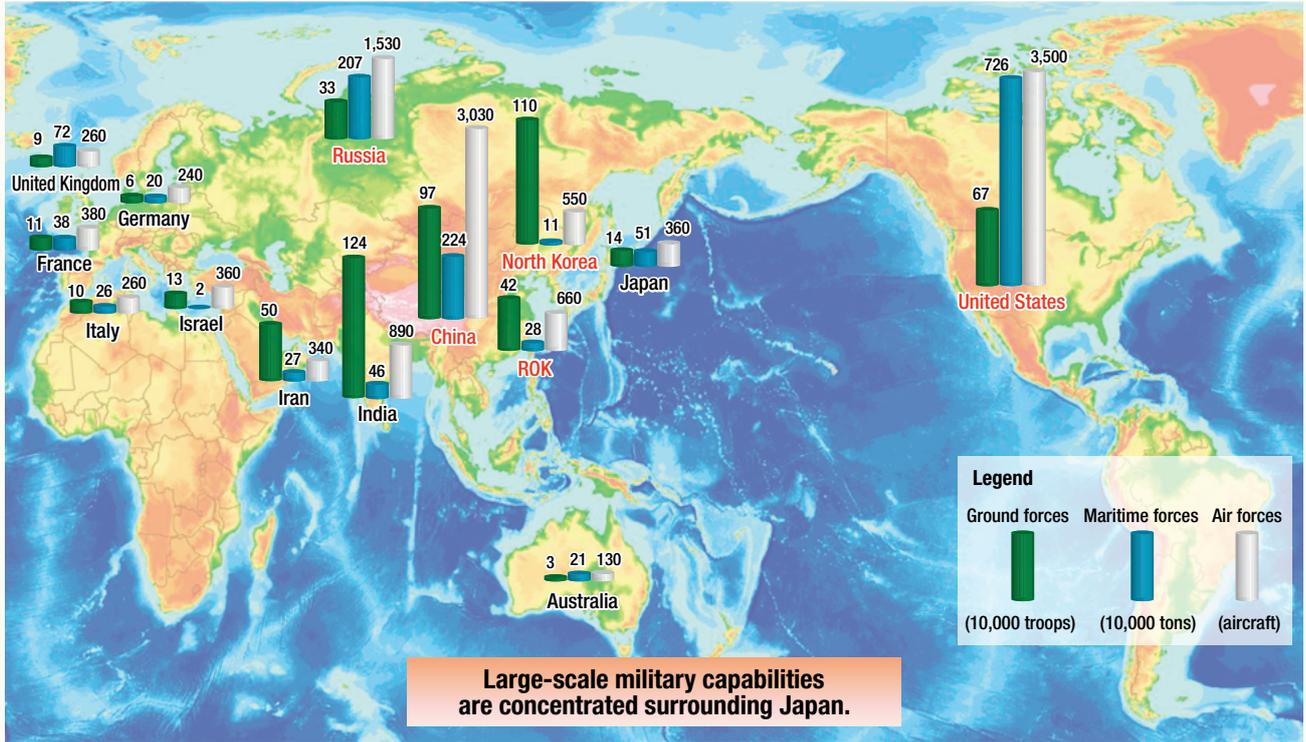
Republic of Korea (ROK) and North Korea. Issues are existing concerning Taiwan and the South China Sea. Furthermore, with regard to Japan, territorial disputes over the Northern Territories and Takeshima, both of which are inherent parts of the territory of Japan, remain unresolved.

On top of this, recent years have seen a continued tendency towards the prolongation of so-called gray-zone situations, or situations that are neither pure peacetime situations nor contingencies and are associated with territories, sovereignty and economic interests, and such situations may increase and expand in the future. The gray-zone situations harbor the risk of rapidly developing into more serious situations without any clear forewarning.

1 EEAS SPECIAL REPORT UPDATE: Short Assessment of Narratives and Disinformation Around the COVID-19 Pandemic (UPDATE DECEMBER 2020 - APRIL 2021), 28 April 2021

Fig. I-1-1 Regional Security Environment surrounding Japan etc.

Military Forces in Major Countries/Regions (Approximate Strength)



Large-scale military capabilities are concentrated surrounding Japan.

Military Forces in Major Countries/Regions

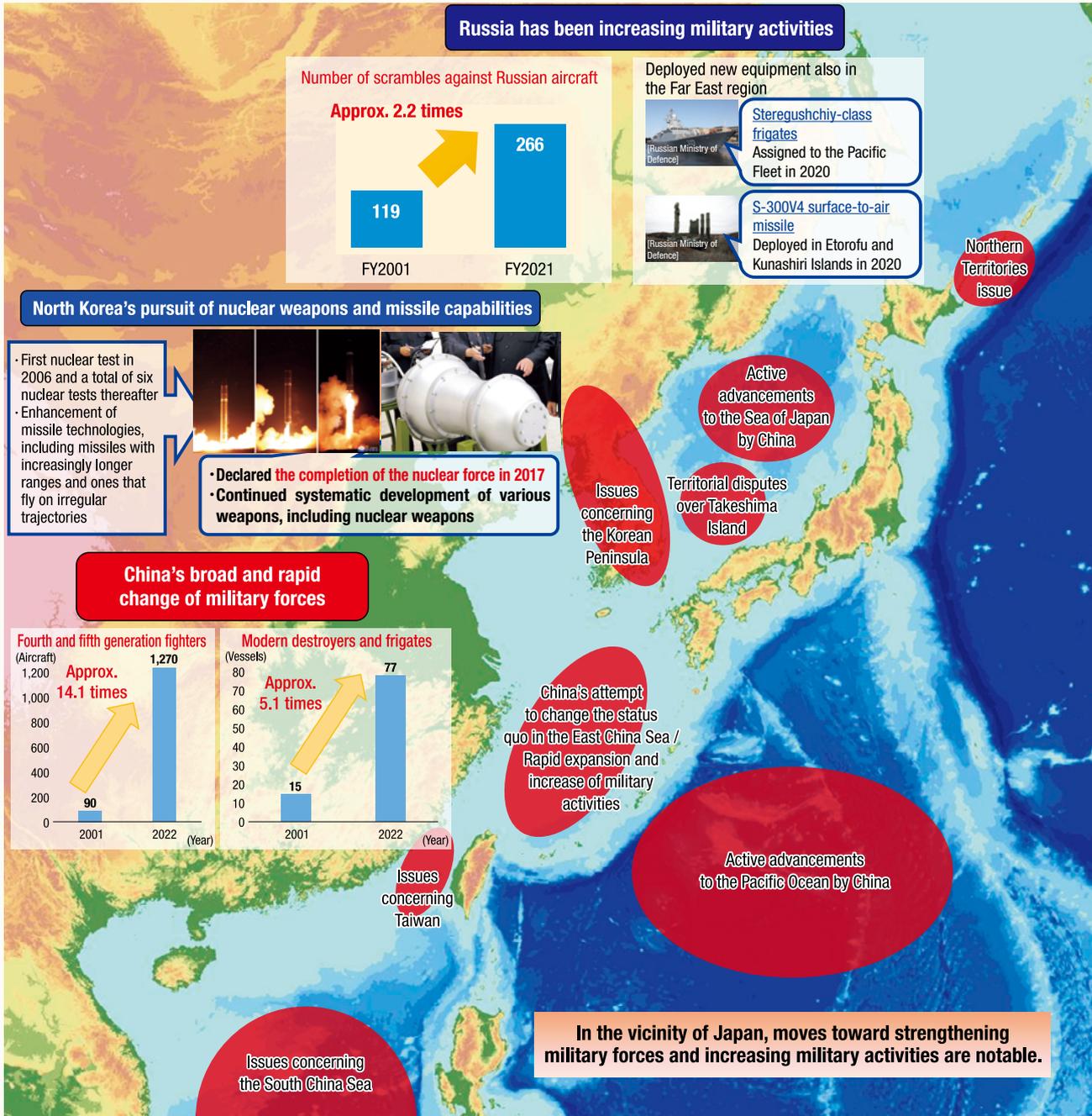
Ground forces (10,000 troops)			Maritime forces (10,000 tons (vessels))			Air forces (aircraft)		
1	India	124	1	United States	726 (970)	1	United States	3,500
2	North Korea	110	2	China	224 (750)	2	China	3,030
3	China	97	3	Russia	207 (1,170)	3	Russia	1,530
4	United States	67	4	United Kingdom	72 (130)	4	India	890
5	Pakistan	56	5	India	46 (330)	5	ROK	660
6	Iran	50	6	France	38 (310)	6	North Korea	550
7	ROK	42	7	ROK	28 (220)	7	Egypt	530
8	Vietnam	41	8	Indonesia	28 (180)	8	Taiwan	520
9	Myanmar	33	9	Iran	27 (560)	9	Saudi Arabia	470
10	Russia	33	10	Italy	26 (170)	10	Pakistan	440
—	Japan	14	—	Japan	51 (140)	—	Japan	360

(Notes)

- Figures for ground forces are basically the numbers of Army personnel in "The Military Balance 2022."* Figures for maritime forces show their tonnages compiled by the MOD based on "Jane's Fighting Ships 2021-2022." Figures for air forces are the total numbers of bombers, fighters, attack aircraft, surveillance aircraft, etc., compiled by the MOD based on "The Military Balance 2022."
- Figures for Japan indicate the strength of each SDF as of the end of FY2021; the number of combat aircraft (air forces) is the sum of ASDF aircraft (excluding transport aircraft) and MSDF aircraft (fixed-wing aircraft only).

* Figures are rounded off to the nearest 10,000 personnel. Figures for the United States include 490,000 Army personnel and 180,000 Marines personnel. Figures for Russia include 50,000 airborne unit personnel in addition to 280,000 ground force personnel. Figures for Iran include 150,000 ground force personnel of the Islamic Revolutionary Guard Corps in addition to 350,000 Army personnel.

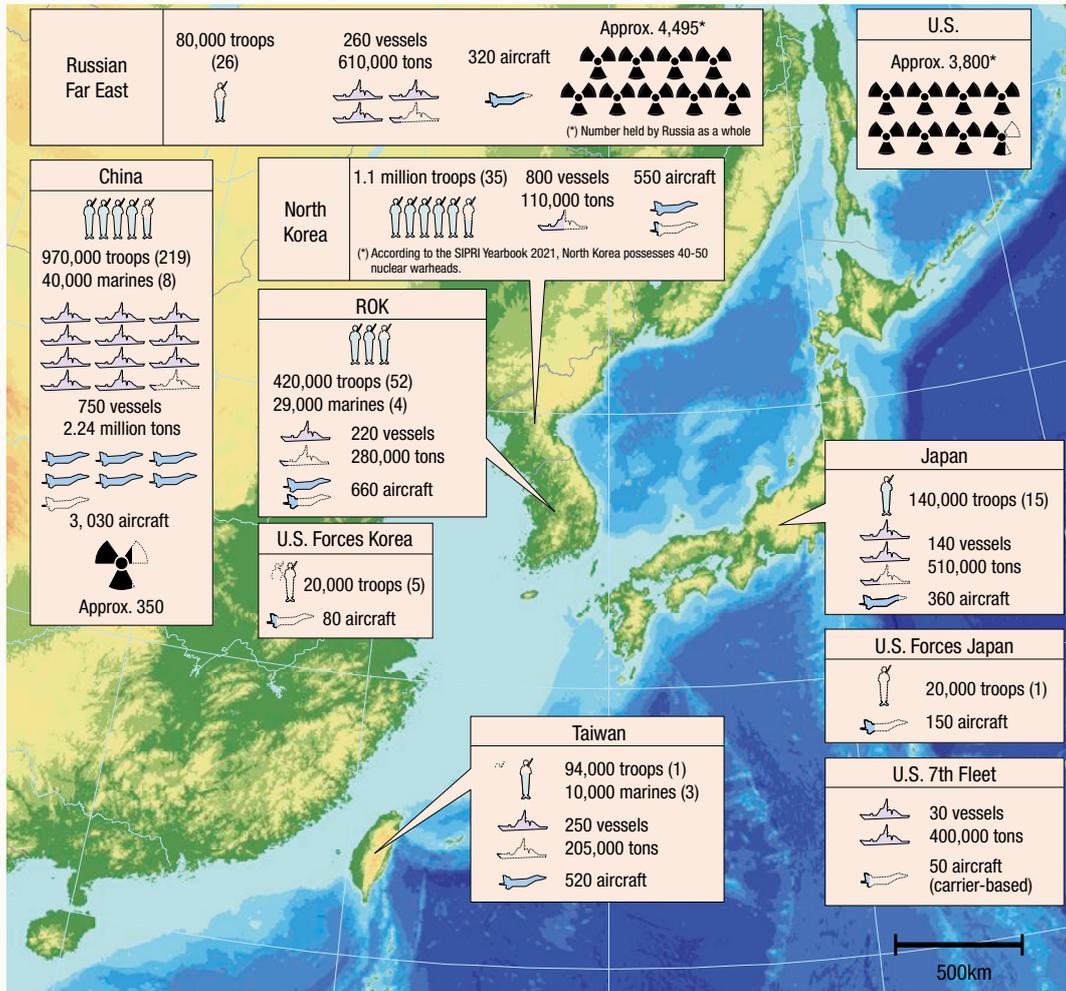
Regional Security Environment surrounding Japan



- Countries in this region abound in political, economic, ethnic, and religious diversity and views on security and the perceptions of threats are different by country.
 - A regional cooperation framework in the security realm has not been sufficiently institutionalized. (⇔ NATO's collective defense in Europe)
 - Longstanding issues of territorial rights and reunification in this region continue to remain. (example: Korea Peninsula, Taiwan, and South China Sea, etc.)
- Inter-state competition across the political, economic, military and other realms is prominently emerging in recent years.
 - Gray-zone situations may increase and expand, which harbors the risk of developing into graver situations.

(Note) Figures for modern destroyers and frigates for China show the total number of Renhai-class, Luhai-class, Luhai-class, Sovremenny-class, Luyang-class, and Luzhou-class destroyers and Jiangwei-class and Jiangkai-class frigates. Additionally, China has 72 Jiangdao-class corvettes (in 2022).

Fig. I-1-2 Main Military Forces in Japan's Surroundings (Approximate Strength)



- Notes: 1 Source: Documents published by the DoD, "The Military Balance 2022" and "SIPRI Yearbook 2021," etc.
 2 Figures for Japan indicate the strength of each SDF as of the end of FY2021; the number of combat aircraft is the sum of ASDF aircraft (excluding transport aircraft) and MSDF aircraft (fixed-wing aircraft only).
 3 Figures for the ground forces of U.S. Forces Japan/Korea indicate the combined total for Army troops and U.S. Marines.
 4 Figures for combat aircraft include naval and marine aircraft.
 5 Figures in parentheses indicate the total number of major units such as divisions and brigades. That for North Korea includes only divisions. That for Taiwan includes military police.
 6 The figures for the U.S. 7th Fleet indicate forces forward-deployed to Japan and Guam.
 7 The figures for the combat aircraft of U.S. Forces Japan and the U.S. 7th Fleet include only fighter aircraft.

Legend

Ground forces (200,000 troops)	Vessels (200,000 tons)	Combat aircraft (500 aircraft)	Number of nuclear warheads (500)
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1 General Situation

On February 21, 2022, Russian President Vladimir Putin signed executive orders recognizing the “Donetsk People’s Republic” and the “Luhansk People’s Republic” in the eastern part of Ukraine as sovereign states. On February 24, President Putin, under the pretext of having received a “request” for assistance based on the “Treaties on Friendship, Cooperation, and Mutual Assistance” with pro-Russian separatist forces in these two “Republics,” stated that he had authorized “a special military operation” aimed at protecting the residents of Donbas region and began an aggression against Ukraine. The Armed Forces of the Russian Federation (AFRF) initially launched many missile and aerial attacks, deployed its ground forces at the same time from multiple fronts—the north, east, and south of Ukraine—and reached near Kyiv, the capital of Ukraine. However, the invading forces allegedly suffered huge losses and retreated from northern Ukraine and other parts of the country in the face of the Ukrainian military’s strong resistance and due to many operational and tactical failures. It was pointed out, however, that the Russian military then reorganized its forces and intensified attacks in eastern and southern Ukraine. The war situation remains unpredictable.

The Russia’s aggression against Ukraine has undermined the sovereignty and territorial integrity of Ukraine, and it is also a serious violation of international law and the Charter of the United Nations, which prohibit the use of force. Such unilateral change to the status quo by force shakes the foundations of the entire international order, including Asia as well as Europe. In addition, brutal and inhumane acts committed by Russia have been revealed in various locations in Ukraine. The mass killing of innocent civilians constitutes a grave violation of international humanitarian law and a war crime, and is absolutely unforgivable.

In the international order after World War II, the norms have been formed that do not permit unilateral



G7 summit on the situation in Ukraine
(March 24, 2022)

change to the status quo by force. Nevertheless, Russia, a permanent member of the United Nations Security Council, which is supposed to take primary responsibility for maintaining international peace and security, is now openly taking military actions challenging international law and the international order and is claiming innocent lives, which can be called an unprecedented situation. If such Russia’s aggression is tolerated, it could send a message with wrong implications that a unilateral change to the status quo is acceptable in other regions as well, including Asia. Therefore, the international community, including Japan, should never tolerate Russia’s aggression.

The international community stands united against Russian aggression against Ukraine and continues to supply defense and other equipment to support Ukrainian efforts to prevent and exclude Russian military aggression in addition to imposing various sanctions and other countermeasures. The future of Russia’s aggression against Ukraine remain unpredictable, and Japan needs to monitor the related development closely with grave concern.

2 How Russia's Aggression Started, What Triggered It, and What Factors Are Involved in It

1 Security Environment in Europe after the End of the Cold War and Ukraine

(1) Building International Consensus on Ukraine's Territorial Integrity and Non-nuclear Status

The security environment in Europe was hugely transformed by regime changes in Eastern European countries in and after 1989, the end of the Cold War by the Malta Summit in December of the same year, and the collapse of the Soviet Union in 1991. This resolved the military confrontation between the North Atlantic Treaty Organization (NATO) and the Warsaw Treaty Organization (WTO), which led to the reduction of the danger of a large-scale war. But new problems subsequently emerged, such as the intensification of ethnic separation and independence issues—the Yugoslav conflict, the Nagorno-Karabakh conflict, and the Chechen conflict, which started around the collapse of the Soviet Union—and concern about the proliferation of the former Soviet Union's weapons of mass destruction.

Ukraine, which demonstrated willingness to be independent in a referendum in December 1991, played an important role in the process of the dissolution of the Soviet Union along with Russia and Belarus. The breaking up of the Soviet Union was determined with the founding declaration of the Commonwealth of Independent States (CIS) by the three states in the same month.

There were issues over the sovereignty of the Crimean Peninsula in southern Ukraine and about which country the Black Sea Fleet, mainly based at Sevastopol on the peninsula, belongs to between Ukraine and Russia, which became independent states. In 1997, the two countries agreed in principle on dividing the fleet and recognizing Russia's use of the base for 20 years and also signed a treaty of amity and cooperation confirming Ukraine's territorial integrity and the inviolability of both countries' borders.

On the other hand, the management of nuclear weapons inherited from the former Soviet Union such as Intercontinental Ballistic Missiles (ICBM) and strategic bombers became an issue in Ukraine, Belarus and Kazakhstan. In 1992, Ukraine signed the Lisbon Protocol for the Strategic Arms Reduction Treaty (START I) together with Russia, Belarus, Kazakhstan,

and the United States and agreed on becoming a signatory to START I and on joining the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as a non-nuclear country. This agreement meant that Ukraine would remove all its nuclear arsenal within its territory together with Belarus and Kazakhstan and transfer the control of it to Russia. The nuclear arsenal within Ukraine was incorporated into the command structure of the former Soviet Armed Forces, controlled from Moscow, and Ukraine had no operational capability of its own. But in the process of abolishing nuclear weapons, Ukraine called for its security assurances and economic assistance in exchange for the removal of nuclear arsenal. Regarding the security assurances for Ukraine, Russia, the United States, and the United Kingdom signed the Budapest Memorandum on Security Assurances in 1993. For economic assistance, various kinds of assistance were provided as part of support for dismantling and abolishing nuclear weapons in former Soviet states, provided mainly by G7 countries, including Japan. In 1996, all the nuclear arsenal in Ukraine was transferred to Russia, which means that Ukraine became a non-nuclear state.¹

(2) Ukraine and Relations between Russia and NATO

Following the collapse of the Soviet Union, Central and Eastern European countries such as Poland and Czech Republic hoped to join NATO with the perspective of securing their independence and security considering their own historical background, and to participate in European integration. NATO showed a negative attitude towards Central and Eastern European countries joining the alliance immediately, however, with emphasis on cooperation with Russia. In 1994, NATO announced the Partnership for Peace (PfP) as a new framework of cooperation. Ukraine as well as other Central and Eastern European countries participated in the PfP ahead of other former Soviet states in terms of promoting cooperation with NATO and maintaining its neutrality, and Russia also participated in the framework.

In 1999, Poland, Czech Republic, and Hungary, which improved their interoperability with NATO, joined the alliance based on the PfP, which marked the beginning

¹ The delivery of tactical nuclear weapons to Russia was completed by May 1992. Strategic nuclear weapons—SS-19 (130) and SS-24 (46)—are deployed in Ukraine and their delivery to Russia was completed by June 1996. In addition, the control of strategic bombers, a vehicle of transporting nuclear weapons, was also transferred to the Ukraine Air Force Long-range Aviation Group and all of their use was abolished.

of the so-called eastward expansion of NATO. In 2002 Ukraine also expressed its will to join NATO in the future both domestically and internationally and embarked on Defense Ministry and military reforms with NATO's cooperation. But because a consensus had not necessarily been reached within Ukraine on joining NATO by that time and different attitudes towards joining the alliance were expressed every time there was a change of government, Ukraine's participation in the NATO Membership Action Plan (MAP) was postponed, although the country's joining the alliance in the future was agreed on at the NATO summit in Bucharest, Romania, in 2008.

Meanwhile, Russia and NATO had a certain level of cooperative relationship at that time, as shown by Russia's participation in the PfP and the cooperation between NATO and Russia in the Bosnian conflict. In addition, Russia was treated differently from Central and Eastern European countries and other former Soviet states in terms of the relationship with NATO, and in 1997 the NATO-Russia Permanent Joint Council (PJC) was established as a framework of sharing what was determined within NATO with Russia. In 2002, the PJC was reorganized into the NATO-Russia Council (NRC), which allowed Russia to participate in a certain level of decision-making in common areas of interest as an equal NATO partner.

With Russia having this level of cooperation with NATO, Russia did not necessarily continue to strongly oppose NATO member states eastward expansion. In its 2000 military doctrine, Russia regarded as threats the expansion of a military bloc and an alliance that could damage its military security and explicitly evaluated NATO as a threat in its 2010 military doctrine and beyond. But Russia eventually acquiesced the Baltic states joining NATO in 2004 when the Russian president was Putin, who is now leading the Russia's aggression against Ukraine. It is also necessary to note that Russia and NATO basically had a relationship of cooperation, including their Air Forces conducting joint exercises,² except for a certain time after the 2008 Russo-Georgian War until NATO and European countries halted in principle their working-level cooperation with Russia,

including military cooperation, with the exception of ambassador-level NRC meetings as a result of Russia's illegal "annexation" of the Autonomous Republic of Crimea in southern Ukraine in 2014.

(3) The "Annexation" of Crimea and Conflict in Eastern Ukraine

Following a political upheaval in Ukraine in February 2014, armed forces purported to be Russian troops occupied the Council of Ministers building and the Parliamentary building in the Autonomous Republic of Crimea in southern Ukraine and also took control of airports and highways leading to the mainland of Ukraine, and major Ukrainian military installations. After taking de facto control of the Autonomous Republic of Crimea, Russia illegally "annexed" Crimea in March of the same year following the results of a "referendum" held in the republic.

Meanwhile, in April 2014, separatists and other forces increased their protests and attacks against an interim Ukrainian government in eastern Ukraine and occupied many buildings, including the Council of Ministers buildings. In response to this situation, the interim Ukrainian government condemned Russia over its alleged involvement and mobilized military forces in an attempt to expel the occupying forces, but failed to settle the situation. In May 2014, a "referendum" was held for or against expanding autonomy under the control of the separatist forces in parts of the Donetsk and Luhansk regions in eastern Ukraine. Because the negotiations between Ukrainian government and the separatist forces failed to reach a breakthrough, the Ukrainian forces continued fighting with the separatists receiving a range of support, including purported Russian direct intervention.

In September 2014 and February 2015, the Organization for Security and Co-operation in Europe (OSCE), Russia, and Ukraine signed "the Minsk agreements"³ for making peace. But sporadic fighting continued in the ensuing years with no progress in the implementation of many of the matters stipulated by the agreements, causing an estimated more than 10,000 casualties.

² The NATO-Russia air force joint exercise "Vigilant Skies" was conducted from 2011 to 2013 as part of cooperation in the NATO-Russia Council (NRC).

³ The Minsk Protocol of September 2014 consists of the following items: (1) ensure the immediate bilateral cessation of the use of weapons; (2) ensure monitoring and verification by the Organization for Security and Co-operation in Europe (OSCE) of the regime of non-use of weapons; (3) enact the Law of Ukraine "With respect to the temporary status of local self-government in certain areas of the Donetsk and Luhansk regions" (Law on Special Status); (4) ensure monitoring on the Ukrainian-Russian state border and verification by the OSCE, together with the creation of a security area in the border regions of Ukraine and the Russian Federation; (5) immediately release all hostages and unlawfully detained persons; (6) prohibit the prosecution and punishment of persons in connection with the events that took place in certain areas of the Donetsk and Luhansk regions; (7) conduct an inclusive national dialogue; (8) adopt measures aimed at improving the humanitarian situation in Donbas; (9) ensure the holding of early local elections in the Donetsk and Luhansk regions; (10) remove unlawful military formations, military hardware, as well as militants and mercenaries from the territory of Ukraine; (11) adopt a program for the economic revival of Donbas and the recovery of economic activity in the region; and (12) provide personal security guarantees for the participants of the consultations.

(4) Ukrainian Defense Efforts in and after 2014

Following the Russian illegal “annexation” of Crimea in 2014 and the outbreak of the eastern Ukrainian conflict, Ukraine shifted its defense policy dramatically to build up its defense capability. The conscription system, abolished in 2013, was revived and the number of military personnel, planned to be reduced to approximately 100,000 by 2014, was increased to approximately 250,000 in 2015.

For its relations with NATO, Ukraine abandoned its previous non-alignment policy in December 2014 and expressed its will to deepen its relations with NATO and seek the alliance. Ukraine accelerated its Defense Ministry and military structural reforms aiming for NATO standards and strived to build up its military capability with educational and training support from the United States, the United Kingdom, Canada, and other countries. In addition, Lithuanian-Polish-Ukrainian Brigade, primarily aimed at participating in UN PKO, was established from 2014 to 2016, although its formation was agreed on in 2009 but remained unrealized. Ukraine also continued to conduct joint exercises with NATO states, including the Rapid Trident exercise jointly with the U.S. Army, which started in 1996, and the Sea Breeze exercise jointly with the U.S. Navy, which started in 1997, and made progress in its efforts for practically improving its interoperability with NATO.

2 The Situation Surrounding Ukraine after the Spring of 2021

(1) Military Tension in the Spring of 2021

From March to April 2021, about one year before the Russia’s aggression against Ukraine, Russia massed many troops around its border with Ukraine and on the Crimea Peninsula, which it had illegally “annexed,” and conducted large-scale exercises, including landing and counter-landing exercises on the peninsula. Starting from late March 2021, the Russian Ministry of Defense announced one by one the status of implementation of inspection of combat readiness in the Southern and Western Military Districts, and military tensions rose in the region until the ministry announced the end of the inspection on April 22. In addition, in ending the

inspection, the equipment of Central Military District units that participated in the inspection of combat readiness was left as they were because they would participate in the Zapad 2021 strategic exercise, scheduled to be conducted in the fall of 2021, in an effort to strengthen the Russian military’s deployment readiness around the Ukrainian border. The Ukrainian Ministry of Defense pointed out that the massed Russian troops were as large as the ones deployed from 2014 to 2015 and stated the evaluation that 76 Battalion Tactical Groups (BTG)⁴ consisting of approximately 150,000 troops were concentrated. Then Ukraine Minister of Defence Andriy Taran, in stating analyses of the purposes of Russia concentrating its troops, mentioned securing Crimean water sources and expanding the areas controlled by the pro-Russian separatist forces in eastern Ukraine—a scenario partially coinciding with Russian military operations in the country’s aggression against Ukraine in 2022.

(2) The Situation after the Summer of 2021

Russia later continued with various actions that could be considered to be intended to increase pressure on Ukraine and its supporting countries. On June 2, 2021, prior to the Ukraine and U.S. Navy joint Sea Breeze 2021 exercise, the Russian Ministry of Defense announced its counteractions against the exercise, later making public exercises and training in the region bordering the Black Sea, including the Crimean Peninsula, and announcing on June 25 the start of the Navy and the Aerospace Force joint exercises in the eastern Mediterranean Sea based at the AFRF bases in Syria.

In July 2021, President Putin published an article titled “On the Historical Unity of Russians and Ukrainians,” making public his original claim denying that Ukraine exists as an independent nation-state separately from Russia.

In September 2021, the Zapad 2021 strategic exercise was conducted in Russia’s Western Military District and Belarus, which border Ukraine.

Meanwhile, Ukraine conducted the Sea Breeze 2021 joint exercise with the U.S. Navy from June to July 2021, the first Cossack Mace joint exercise with the

4 The Battalion Tactical Group (BTG), with one motorized rifle (mechanized infantry) battalion (made up of two to four companies) assigned to maneuvers being its core, is a Russian combined arms unit (over three companies) that significantly reinforced artillerymen and multiple rockets originally assigned to a division or a brigade, higher forces, as well as one tank company. Engineers and air defense and logistics support forces were added to the group according to duties and the group was flexibly assembled with 600 to 1,500 personnel. The BTG is a form of force organization introduced to increase troop readiness and fire power support on the basis of the experiences of the Chechen conflict and the Georgia conflict, and as of August 2021 168 BTGs were operational within the entire Russian military.

British Army in July 2021, and the Rapid Trident 2021 joint exercise with the U.S. Army in September 2021, involving many participating countries, mainly NATO member states.

(3) The Rekindling of Military Tension after the Fall of 2021

It is pointed out that after late October 2021, more than one month after the end of the Zapad 2021 strategic exercise, U.S. and U.K. intelligence authorities released their evaluation that Russian troops might invade Ukraine in early 2022 because the equipment of Central Military District units, which was left as they were around the border with Ukraine under the pretext of participating in the exercise in the spring of 2021, did not return to the base and actively disclosed their intelligence and analyses of Russia's possible aggression against Ukraine. In addition, focusing on Russia continuously increasing its forces especially around the Ukrainian border, the United States and other related countries urged Russia to ease tensions through diplomatic efforts and also expressed their will to support Ukraine by means other than dispatching troops to the country, including arms supply.

While Russia consistently denied the indications of the United States and other related countries that it might invade Ukraine, the Russian Foreign Ministry released its own draft of a treaty and agreement with the United States and NATO on the non-expansion of NATO in December 2021, practically demanding that the United States and other NATO member states recognize the former Soviet states as Russia's "sphere of influence" by claiming that Russia would not allow more of those countries, including Ukraine, to join NATO. While Russia continued in and after January 2022 to negotiate with the United States and NATO in relation to this move, it conducted a succession of exercises, including an exercise with all Russian Navy fleets participating in it, the Allied Resolve 2022 exercise with Eastern Military District units as the main force that were deployed from the Far East to Belarus by railway transport, and a strategic deterrence forces exercise with surface-to-

surface missiles equipped with conventional warheads such as Kalibr and Iskander as well as with strategic nuclear forces. Through these series of exercises, Russia further increased military tension in the region and used the exercises as an opportunity to mass troops around Ukraine.

On February 21, 2022, President Putin held a Security Council meeting and confirmed that the senior members of his administration approved of the recognition of the "Donetsk People's Republic" and the "Luhansk People's Republic" by the pro-Russian separatist forces in eastern Ukraine. Following this confirmation, he recognized their "independence" and signed the "Treaty on Friendship, Cooperation, and Mutual Assistance" with the heads of these two "Republics." In addition, the president ordered the Russian Ministry of Defense to conduct peacekeeping operations by the AFRF in the territory of these "Republics," claiming that he had received a request from the "Republics" for support based on the "Treaty on Friendship, Cooperation, and Mutual Assistance," and requested the Federation Council (the upper house of the Federal Assembly of Russia) to approve the dispatch of Russian troops to the outside of Russia. This made it clear that Russia had the will to take military operations at least in eastern Ukraine. At that time it was thought that 120 BTGs—a force approximately 170,000 to 190,000 strong—were concentrated in Belarus and Russia and on the Crimean Peninsula and that Russia could launch a full-scale invasion of Ukraine.

In response to Russia's increasing its forces around the Ukrainian border and on the Crimean Peninsula and in order to prepare against a possible Russian invasion, Ukraine started in January of the same year to organize the Territorial Defense Forces (25 brigades across the country) that is mainly structured with reservists and complements a standing army. Ukraine also launched the Zametil 2022 command and staff exercise across the country on February 9, 2022, as a counter move to the Russia–Belarus Allied Resolve joint exercise.

3 How Russia Started an Aggression against Ukraine and an Outlook on It

1 The Failure of Russia's Blitzkrieg and Ukraine's Defense in an Early Battle

On February 24, 2022, Russia started a full-scale

aggression against Ukraine under the plea of a "Special Military Operation" to disarm Ukraine in order to protect the residents of "Donetsk People's Republic" and "Luhansk People's Republic."



Russian armored vehicles drive in Ukraine
[SPUTNIK/Jiji Press Photo]

Chapter
2

Russia's Aggression against Ukraine

As factors that led Russia to invade Ukraine, political ones, including Russia's recognition of NATO's eastward expansion as a threat, are pointed out. In particular, if Ukraine and Georgia joined NATO on their own will after other Central and Eastern European countries and the Baltic states, Russia would lose more of its buffer zones with NATO on the western border. Also, if Ukraine sought to practically increase its military capabilities and interoperability with NATO by developing its cooperation with the alliance with the will to join, even if there was no prospect for them to join, it would imperil Ukraine as a Russian "sphere of influence," which Russia considered unacceptable.

On the other hand, it is pointed out that some more military factors directly led Russia to decide to invade Ukraine. Namely, it is conceivable that Russia might have had an optimistic assessment about Ukraine's will and military capability to resist invaders based on its successful experience of "annexing" Crimea in 2014 and on that Russia had grown increasingly confident about the Russian military capability improvements through structural reforms and modernization under the Putin administration.⁵

In the initial phase of its aggression against Ukraine, the Russian military launched missile attacks to destroy Ukrainian air defense systems and air power. But Russian troops started ground invasions on multiple fronts, from northern Ukraine and the northeastern border to the capital Kyiv, from the eastern border to Kharkiv, and from the Crimean Peninsula to Kherson, Zaporizhzhia,

and the coast of the Sea of Azov without carrying out thorough missile attacks and securing air superiority. Regarding the reasons why Russian troops did not carry out thorough missile attacks, some point out that the Russian military might have had optimistic assessments that they would be able to discourage Ukraine from resisting and incapacitate the Ukrainian military with missile attacks and simultaneous ground invasions on multiple fronts and that the Russian military might have been lacking adequate targeting capability for missile attacks such as reconnaissance satellites in addition to the problem on its insufficient supply capability caused by the limitation of missile production capability.

Furthermore, poor coordination between the Russian Land Force and the Aerospace Force due to the lack of inter-service joint operation capabilities, and the separate commanding structure by different military districts for each operational front due to the absence of a unified commanding authority, lead to the lack of air support for ground units as well as too stretched posture and piecemeal attacks of ground forces. It could be seen that these are the major factors that allowed Armed Forces of Ukraine (AFU) and State Border Guards to repel each Russian units separately. Ukraine's Deputy Defense Minister Hanna Maliar announced as of about one and a half days after Russia started its aggression against Ukraine that the Russian side had lost 2,800 personnel, up to 80 tanks, and 516 armored combat vehicles. It is pointed out that these huge Russian losses were caused by the Ukrainian military making effective use of equipment including antitank missiles provided by the United States and other NATO member states.

The Russian military not only started its ground invasion on the same day as missiles attacks but also occupied Hostomel Airport in northwestern Kyiv by airborne units on the day of the start of invasion and attempted to invade Kyiv by light armored units on the day after the start of invasion. These moves imply that Russia planned to remove the Zelenskyy administration by initially seizing the capital Kyiv. From the earliest stage of the Russian aggression, President Zelenskyy clearly and consistently showed his intention to stay in Kyiv, resulting in a failed attempt by Russia to

⁵ As an example of explanations for the reasons why Russian political and military leaders, including President Putin, decided to invade Ukraine, on March 8, 2022, William Burns, Director of the Central Intelligence Agency (CIA), said during a House Intelligence Committee hearing: Putin judged the situation as suitable for the use of force against Ukraine on the basis of the following assumptions: (1) Ukraine is so weak that it can easily be intimidated; (2) Public attention will be distracted from the Ukraine situation in Europe, especially France and Germany, due to a presidential election and a change of government; (3) The Russian economy will be able to weather the sanctions; and (4) Russia's modernized military can win in a quick and decisive manner at minimum costs.

quickly take control of the capital as the AFU rebuffed the advance of Russian main forces at the suburbs of the city. Furthermore, Russian main forces attempting to advance to Kyiv from Belarusian and Russian borders finally withdrew on all fronts of the capital, notably because of their poor logistics and the strong resistance of Ukrainian Forces. In addition, on February 27, 2022, Russian troops also attempted to invade Kharkiv, Ukraine's second largest city in the east and an important point of transport, by light armored units, but failed to take quick control of the city in the face of Ukrainian counter attacks. After failing to seize these large cities in initial battles, the AFRF further intensified their indiscriminate attacks against noncombatants, including bombarding residential areas by multiple rockets. In addition, it is considered that war crimes were committed by Russian troops, including the slaughter of civilians, in the areas seized by the Russian military, including the suburbs of Kyiv.

Meanwhile, it can be pointed out that the Russian military expanded its occupied areas in southern Ukraine adjacent to the Crimean Peninsula illegally "annexed" by Russia in 2014 more quickly than in other areas—due to such factors as relatively few logistical issues, easy access to air support within the range of ground-to-air missiles deployed on the peninsula, the mainland of Russia and the Black Sea, and relatively flat terrains. But the AFU announced that it attacked Russian military convoys of logistical vehicles by the Bayraktar TB2, an unmanned aerial vehicle (UAV), near Kherson and that it is intermittently attacking Chornobaivka Airport, which Russian forces have occupied and used as an attack base by artillery and multiple rockets with reconnaissance and artillery observation by the UAV. It is probable that the AFRF have failed to expand its occupied areas significantly, although it keeps the areas it seized in two weeks or so after the start of the aggression against Ukraine.

2 Russia's Attack on Nuclear Power Stations and Nuclear facilities and the Situation Surrounding Nuclear, Biological, and Chemical Weapons

As shown by the statement made by Russian Defense Minister Sergei Shoigu at the meeting of President

Putin's Security Council held on February 21, 2022, prior to Russia's aggression against Ukraine, Russia claimed that Ukraine might develop nuclear weapons contrary to the reality. In fact, however, it was Russia that took a dangerous action over nuclear substances and nuclear facilities. Russia occupied the Chernobyl nuclear power plant near the Belarusian border on February 24, 2022, and also attacked and occupied the Zaporizhzhia nuclear power plant in southeastern Ukraine on March 4, 2022. In addition, Russia attacked Kharkiv Institute of Physics and Technology (the KIPT), which has testing nuclear reactors and deals with nuclear substances, multiple times on and after March 6, 2022.

For nuclear weapons, on February 27, 2022, President Putin ordered Russian Defense Minister Sergei Shoigu and Chief of the General Staff of the AFRF Valery Gerasimov to put the deterrence forces on high combat alert having nuclear forces in mind. On March 22, 2022, President Putin's spokesman Dmitry Peskov made a statement to the effect that Russia could use nuclear weapons if it faced a threat where its survival is at stake. In addition, on April 20, 2022, the Russian military conducted its first flight test of the new Sarmat heavy intercontinental ballistic missile (ICBM) in development, and President Putin made a statement showing off his country's nuclear force.

Russia has repeatedly claimed that Ukraine may use chemical and biological weapons. But the United States and the United Kingdom evaluate it as showing that Russia is preparing for the so-called "false flag campaign."⁶

3 Russia's Downward Revision of Its Operational Goals and a Future Outlook

The AFRF, which practically failed to take initial control of the capital Kyiv, withdrew the Kyiv area troops to Belarus and the territory of Russia. On March 25, 2022, Russia announced that its previous military action had been at "the first phase of operation" and that the primary goal of its operation would shift to the "liberation" of the Donetsk and Luhansk oblasts in eastern Ukraine, that is, expanding occupied areas in the regions. This represented a practical downward revision of war purposes.

On April 9, 2022, the BBC reported, as a piece

⁶ On March 21, 2022, US President Joe Biden made a statement to the effect that there are certain signs that President Putin is considering using biological and chemical weapons in Ukraine.

of information from a western authority, that Gen. Dvornikov, the commander of the Southern Military District, who had commanded the Russian Task Force in Syria in the past, was assigned to Captain General for the Ukraine aggression. While this assignment is seen as an action to integrate operational command, it is anticipated that the problem on operational command of Russian Forces will persist in the future, because motley troops in Ukraine including ones from the AFRF, National Guard (former Internal Troops), Federal Security Service (FSB), and several paramilitary groups such as Kadyrovtsy which is affiliated with the Head of the Chechen Republic Kadyrov, make the integration difficult.

The AFRF reorganized the units it had withdrawn from the Kyiv area in Belarus and Russian territory and is considered to have started deploying the units gradually to eastern Ukraine in mid-April, 2022. According to a statement from General Staff of the AFU on May 3, 2022, the Russian troops conducting offensive operations in Eastern Ukraine initially included the 1st Tank Army and the 20th Army of the Western Military District of Russian Land Force in the area including Kharkiv, and then included the 29th Army, the 35th Army, and the 36th Army of the Eastern Military District that participated in the attack of Kyiv, and, furthermore, the 68th Corps that had stationed in Southern Sakhalin and Northern Territories of Japan. In addition, Russian troops encircled Mariupol, Ukraine's last stronghold in southern Donetsk oblast on the coast of the Sea of Azov, and attempted to seize the city by bombing and shelling with no attention to the damage to noncombatants. It is probable that Russian forces are planning to occupy main cities in eastern and southern Ukraine, such as Zaporizhzhia and Dnipro on the east of the Dnieper River and Mykolaiv and Odesa on the west of the Dnieper, using Kherson on the western bank of the Dnieper, a main city they had occupied, as strongholds. On April 22, 2022, Gen. Minnekaev, the Deputy Commander of Russia's Central Military District, said that their current operational goal was to take complete control of southern Ukraine as well as the Donetsk and Luhansk Oblasts in eastern Ukraine. He claimed that this move was intended not only to secure land corridors between the mainland of Russia and the Crimean Peninsula, which was illegally "annexed" in 2014, but also to

cut off Ukraine's access to maritime trade and secure communication with eastern Moldova's Transnistria region controlled by pro-Russian separatist forces. This also means that Russian forces are possibly planning to divide Ukraine. The AFRF are continuing with their missile attacks on many parts of Ukraine, including western Ukraine, at the same time and are considered to be seeking to undermine and deprive Ukrainians of their will to resist by destroying Ukrainian military logistics and increasing noncombatant casualties.

In response to these Russian attacks, the AFU are continuing with its counterattacks and reportedly sank Russian Black Sea Fleet flagship Slava-class missile cruiser, the Moskva, by the domestically produced Neptune surface-to-ship cruise missile on April 13, 2022, in southern Ukraine where Russian forces were purported to have achieved relatively large military successes. On April 30, Ukrainian troops also shelled a Russian command post in Izium in the Kharkiv oblast in eastern Ukraine where Chief of the General Staff of the AFRF Valery Gerasimov was purported to stay. And on May 12, 2022, Ukraine troops attacked Russian troops attempting to cross the Donetsk river. According to the assessment of the British Ministry of Defence, Russian Army is considered to have lost at least one BTG with this attack. It is pointed out that the AFRF, which are more advantaged in terms of troop strength and equipment, have problems with morale and logistics as well as operations and tactics, whereas the AFU are considered to continue with their counterattacks with support from various countries as well as with their strong will to resist. While it is pointed out that the war may drag on, there is a possibility that Ukraine will counter attack slowly, considering that some areas are being taken back by the AFU.

Before the start of Russia's aggression against Ukraine, some predicted that Russia, far more advantaged in terms of military power, would gain air superiority by intensively deploying long-range precision strike capabilities, such as cruise missiles and strategic bombers they had showed off during their operations in Syria since 2015, and then force Ukraine into submission in a few days by sending ground troops. In fact, however, it is said that the Russian military is relatively sluggish in its missile and air attacks and has failed to gain air superiority. It is also pointed out

that the AFRF suffered huge losses⁷ because they did not concentrate ground troops on particular fronts and conducted piecemeal deployments to multiple fronts, which caused some to question the Russian military's operational capability in a large-scale war. In addition, it is considered that Russian cyber attacks and electronic warfare have not been as effective as initially expected. It is also conceivable that the so-called hybrid warfare instruments, such as false flag campaign and disinformation, focused on making it difficult to identify true actors, justifying their actions, and sending out disturbing information, have not worked well not only because the nature of these instruments is not consistent with a full-scale invasion using large-scale forces which cannot hide true actors, but also because Russia's intentions were made public widely through active intelligence disclosures by the United States and the United Kingdom. On the other hand, Ukraine is acquiring huge external assistance from not only state governments but also private entities through its proactive information dissemination by key government leaders including Mr. Fedorov, Vice Prime Minister. The Ukrainian government also got ahead of Russia in fields such as intelligence, media, and cyberspace by recruiting volunteers to organize an "IT Army" whose main duty is to conduct cyber attacks against Russia.

Russia has put importance on the role of military power and has sought to secure its powerful voice in the international community against the backdrop of the military power, but huge losses through its aggression against Ukraine will likely bring a decline of its power in medium- to long-term as well as changes of the military balances in surrounding areas.⁸ In particular, Russia may not only further seek to maintain and secure its influence on regions comprising the Collective Security Treaty Organization (CSTO), such as Belarus and Kazakhstan, but also further deepen its relations with China, which is considered to have something in common in terms of security, including countering the United States. In addition, Russia may further increase its emphasis on nuclear forces as a deterrent power until it recovers from the damage of its conventional forces from its invasion of Ukraine. If this happens, in the area surrounding Japan, the Russian military may further increase its activities around the Sea of Okhotsk, near the Northern Territories of Japan and the Chishima Islands, where its strategic nuclear-powered submarines constituting an important part of Russia's strategic nuclear capability are operating.

 Chapter 3, Section 5-3-1 (Nuclear Forces)
Chapter 3, Section 5-4 (Russian Forces in Japan's Northern Territories)

4 The Impact of the Russia's Aggression against Ukraine on International Affairs and Various Countries' Responses to It

1 General Situation

For Russia's aggression against Ukraine, Russia has had to pay a high price not only because Ukraine itself strongly resists Russia's aggression but also because the international community is imposing strong coordinated sanctions against Russia and continues to support Ukraine. In addition, European countries stand more united against Russian threats, and the European security environment is at a major turning point in the wake of Russia's aggression against Ukraine. Clearly, the aggression by Russia, which has seen NATO's

eastward expansion as a threat to itself, catalyzed European countries to shift their security policies in this manner. Therefore, it is doubtful to say that Russia's strategic objective of ensuring its own security through maintaining its "sphere of influence" has been achieved by the aggression. In this regard, based on the recognition that the security of Europe and that of the Indo-Pacific region including Eastern Asia are indivisible, Japan needs to pay attention to the future developments of the situation in Europe, including its strategic effects. This is because Japan is a close ally of the United States, a NATO member state, and

⁷ For Russian military losses, Russia suffered 23,500 deaths according to an announcement by Ukraine's General Staff Office on May 1, 2022. On the other hand, the Russian Ministry of Defense announced 1,351 had been killed and 3,825 left wounded on March 25 of the same year. For casualties on the Ukrainian side, President Zelenskyy said on April 16 of the same year that 2,500 to 3,000 were killed in combat and approximately 10,000 were left wounded.

⁸ On April 25, 2022, US Defense Secretary Lloyd Austin said that Russia had failed to achieve its principal aim to totally subjugate Ukraine and that the Russia had already lost a lot of military capability. In addition, on May 2 of the same year, the UK Ministry of Defence announced its analyses, saying that although Russia had deployed forces equivalent to approximately 65% of all its entire ground combat strength at the initial phase of the aggression against Ukraine, more than quarter of these units might be rendered combat ineffective. Furthermore, UK Ministry of Defence indicated that some of Russia's most elite units, including airborne forces had suffered the highest levels of attrition and it would probably take years for Russia to rebuild these forces.

is located on the opposite side of Europe across the Eurasian Continent where Russia occupies. In addition, the change in the European situation in response to the Russia's aggression against Ukraine can also have an impact on global affairs including developments of the strategic competition between the United States and China and impact on Asia. In any case, it is necessary to monitor the related situations closely with great interest.

2 Responses by NATO Member States and Other Countries

European countries' views of Russia have varied due to differences in their economic relations with Russia and geographical distances. When Russia "annexed" Crimea in February 2014, the international community could not necessarily show a coordinated strong stand against Russia, with the United States, the United Kingdom, the Baltic states, and Poland with a keen sense of threat towards Russia taking a hardline stand against Russia, Germany and Italy taking a relatively conciliatory approach, and France pursuing dialogue with Russia. In contrast, the Russia's aggression against Ukraine generated a rapidly growing alarm amid European countries and Russia's aggressive actions are being viewed as a threat to European and northern Atlantic security.⁹

In this respect, NATO member states, which reaffirmed Russia's threat, sought to strengthen their deterrent power and announced to deploy NATO Response Force (NRF) to the East Europe region for the purpose of reassurance after an extraordinary virtual summit in February 2022, and decided to establish four additional battlegroups in Bulgaria, Romania, Hungary, and Slovakia respectively at an extraordinary NATO summit in March 2022. In addition, the Global Posture Review, released in November 2021, clearly states that the U.S. military will strengthen combat-credible deterrent against Russia's aggression and enable NATO forces to operate more effectively. The 25,000 active-duty force cap in Germany was also rescinded to allow for permanent stationing of an Army Multi-Domain Task

Force and other personnel in Germany. It is important to pay attention to the future developments of the U.S. military in response to the Russia's aggression against Ukraine.

Meanwhile, NATO member states, including the United States, are also taking a cautious attitude towards deployment of troops to Ukraine, those countries provide indirect support through supplying defense equipment and other measures.¹⁰ More specifically, NATO member states have provided equipment including man portable antitank and anti-air missiles which are thought to contribute to helping Ukrainian forces delay the advancement of Russian armored forces and prevent the expansion of their battle fronts by diminishing Russian troops such as their airborne units. NATO member states are also boosting the provision of heavy weapons, including tanks, armored vehicles, and howitzers, which enhance Ukrainian counterattack capabilities against Russian aggression. Among others, the United States announced a total of more than four billion dollars in security assistance to Ukraine by late April 2022 after the inauguration of the Biden administration—more than 3.4 billion dollars after Russia had started its aggression against Ukraine. The United States has provided Ukraine with a significant amount of equipment, such as antitank missiles, surface-to-air missiles, howitzers, loitering munitions, and air surveillance radars. For some equipment, the United States mentioned that it has helped train Ukrainian soldiers in its continent and other areas. In addition, on 24 April, Secretary of State Antony Blinken and Defense Secretary Lloyd Austin visited Kyiv where they met with Ukraine President Volodymyr Zelenskyy and expressed their will to provide strong support to Ukraine, announcing financial support for the procurement of equipment to Ukraine and Eastern European countries. Moreover, satellite Internet services provided by U.S. companies in response to the request from the Ukrainian government are used not only as a means of communications for the Ukrainian people but also are utilized to operate the Ukrainian military's UAV. Such support for Ukraine using civilian cutting-edge technologies attracts attention as a noticeable form

⁹ In March 2022, the European Council adopted a "Strategic Compass" laying out a common strategic vision for security and defense policies in the next five to ten years. In this document the EU declares that "Russia unprovoked and unjustified military aggression against Ukraine that grossly violates international law and the principles of the UN Charter and undermines European and global security and stability" and regards Russia as a "long-term and direct threat."

¹⁰ On April 26, 2022, US Defense Secretary Lloyd Austin said that the United States and its allies had provided more than five million dollars' worth of equipment since the start of the Russia's aggression against Ukraine. On the other hand, on the same day, Russian Foreign Minister Sergei Lavrov expressed his opposition to NATO member states' defense equipment supplies to Ukraine, claiming that NATO's supply of weapons to Ukraine in essence meant that the Western alliance was engaged in a proxy war with Russia and that those equipment would be a legitimate target for Russia's military.

of assistance.

The United Kingdom has continuously provided Ukraine with equipment and has dispatched instructors to the country together with the United States and other countries since Russia's "annexation" of Crimea in 2014. After the Russia's aggression against Ukraine as well, the United Kingdom announced that it would provide Ukraine with equipment, such as UK-made man portable antitank guided weapons, surface-to-air missiles, anti-ship missiles, armored vehicles, and electronic warfare devices. In April 2022, UK Prime Minister Boris Johnson visited Kyiv where he met with Ukraine President Volodymyr Zelenskyy and announced that his country would supply more military equipment. The United Kingdom expressed strong cooperation with a continued strong sense of alarm towards Russia. In addition, France, which acted as a mediator between Russia and Ukraine together with Germany in the "Normandy format"¹¹ aiming to bring the conflict in eastern Ukraine to a peaceful resolution, met with both Russian and Ukrainian leaders in early February 2022 as part of active diplomacy. Furthermore, France reacted strongly against Russia, which started its aggression against Ukraine right in the middle of the negotiations, and announced on 26 February that the country would provide Ukraine with military equipment and 300 million euro in assistance. Although Germany had initially shown reluctance to export military equipment to Ukraine in accordance with the principle of disapproving of the export of military equipment to countries in conflict, it shifted its policy after the Russia's aggression against Ukraine and announced from February to early April 2022 that it would supply Ukraine with military equipment, such as antitank missiles and surface-to-air missiles. After that, Germany maintained a relatively cautious attitude towards Ukraine as it continued denying direct supplies of their heavy weapons including tanks, and announced it would supply Eastern European countries with weapons in compensation of their supplies of heavy weapons from former Soviet Union to Ukraine. Germany later changed its policy to also supply heavy weapons to Ukraine and announced supplies of weapons such as self-propelled anti-aircraft guns and self-propelled howitzers. Other NATO member states also announced that they would

supply a considerable amount of military equipment. Some Central and Eastern European countries, which are considered to have a keen sense of alarm towards Russia due to their historical circumstances and geographical relations, have expressed active support to Ukraine. In addition, non-NATO member states also provide Ukraine with military equipment and other assistance. For example, Sweden and Finland have announced that they will supply antitank weapons and Australia announced by late April 2022 that it would provide a total of approximately 191.5 million Australian dollars in military assistance, including the supply of Australia-made wheeled armored vehicles. In particular, Sweden has decided to supply military equipment against its principle of not supplying weapons to countries involved in a conflict.

Moreover, the Russia's aggression against Ukraine has prompted NATO member states to strive to strengthen defense cooperation within the collective defense architecture of NATO and make efforts to build up their defense capabilities. At an extraordinary NATO summit on March 2022 after the Russia's aggression against Ukraine, NATO announced that they would accelerate defense investment and strengthen individual and collective capacity with countries that resist all forms of attack. Many NATO member states are shifting to increase defense expenditures. Among others, Germany made a particularly dramatic shift in its defense policy as a result of the Russia's aggression against Ukraine. On February 27, 2022, German Chancellor Olaf Scholz announced that his country would increase the rate of defense spending to GDP from the current 1.5% or so to more than 2% and keep it that way. In addition, the German government has decided to appropriate 100 billion euro to create a special fund for strengthening defense capability in the federal budget for FY 2022 and plans to revise the Basic Law for the Federal Republic of Germany to secure the financial resources necessary for the measures. Moreover, public opinion in Sweden and Finland, which are countries that have maintained military neutrality and are non-NATO member states, has rapidly been leaning towards joining NATO following the Russia's aggression against Ukraine. The views in favor of admission to NATO in polls are reaching a majority for the first time. In a joint press conference

¹¹ The framework of dialogue between Ukraine, Russia, France, and Germany that have had consultations for a settlement of the situation based on the Minsk agreements since 2014 when the Ukraine situation deteriorated.

in April 2022, the leaders of these two countries stated that the Russia's aggression against Ukraine marked a dramatic turning point in their security environment and announced that their countries would proceed with considering joining NATO. In May 18, 2022, Sweden and Finland both submitted their applications to join NATO. NATO member states including the United States and the United Kingdom welcomed the applications and stated their will to support the two countries.¹²

While many NATO member states and other countries strengthen their solidarity like this, Turkey, which is also a NATO member state, is considered to pursue its own standing. Turkey, having deep relations with both Russia and Ukraine, expressed support to Ukraine after the start of the Russia's aggression but also showed consideration for Russia by, for example, not imposing sanctions, and acts as a mediator for the ceasefire talks between the two countries. On February 28, 2022, the Turkish Minister of Foreign Affairs stated that his country would implement the provisions of the so-called Montreux Convention¹³ that prescribes navigation rights in the Turkish Straits (consisting of the Bosphorus strait, the Sea of Marmara, and the Dardanelles Strait), and announced on the following day that some Russian warships cancelled the passage of the straits. On the other hand, Ukraine forces is said to still effectively use Turkish Bayraktar TB2 UAV during Russia's aggression, after its first time use in actual warfare in Eastern Ukraine in October 2021. Mr. Peskov, the spokesman of the Presidential Executive Office of Russia, warns that the use of this UAV is making the area unstable.

 See Chapter 3, Section 9-2 (Enhancement of Multinational Security Frameworks)

3 Responses by Other Regions

On February 25, 2022, the UN Security Council failed to adopt the resolution demanding the immediate withdrawal of Russian forces from Ukraine by Russia's use of its veto, with 11 countries in favor, Russia voting against it, and China, India, and the United Arab

Emirates (UAE) abstaining. In addition, on March 2 of the same year, the UN General Assembly adopted a resolution deploring the Russian invasion of Ukraine and demanding that Russia immediately withdraw its forces from Ukraine by 141 countries in favor. On the other hand, Belarus, Syria, North Korea, and Eritrea as well as Russia voted against the resolution and 35 countries, including China and India, abstained. As shown by this, while the majority of the international community showed a critical attitude regarding Russia's aggression against Ukraine, some countries and regions disagreed with this position.

China has taken the position that it is not concerned with Russia's plans for aggression against Ukraine. However, China has not blamed Russia, and insisted that Russia's actions are caused by the "Cold War mentality" of the NATO member states including United States, and that it understands Russia's reasonable concerns on security issues. Furthermore, China emphasizes that both China and Russia have made it clear that the so-called "provision of military assistance to Russia by the Chinese side" is complete disinformation. U.S. National Security Advisor Jake Sullivan and Yang Jiechi a member of the Central Politburo of the Communist Party of China, had a meeting of a few hours in Rome, Italy, on March 14, 2022 concerning the Russian's aggression against Ukraine since that February, during which the U.S. emphasized the risk of China's cooperation with Russia. In response to this, China emphasized that it was providing Ukraine with emergency humanitarian assistance and would continue with its own efforts with contribution to promoting mediation and dialogue. In recent years, China and Russia have been promoting their mutual cooperation in the military field. For example, in November 2021, China and Russia announced that they had agreed on strengthening bilateral military cooperation for strategic military exercises and patrols at a bilateral defense ministers' online meeting. In addition, in joint statements by China and Russia in February 2022, the two confirmed their mutually supportive stances regarding each other's "core interests," with

¹² Russia strongly opposed to the application of Sweden and Finland for NATO membership. On May 12, 2022, The Ministry of Foreign Affairs of Russia warned that it will have to take "military-technical" steps in response to the application, and President Putin stated to Mr. Niinistö, the president of Finland, that "the abandonment of Finland's traditional policy of military neutrality would be an error" in a telephone conversation on May 14. In addition, Turkey had reservation to the application of Sweden and Finland because of the two countries' support to Kurdish groups that are conflicting with Turkish government.

¹³ Turkey has significant authority over both the Bosphorus and the Dardanelles based on the Montreux Convention of 1936. Article 19 of the Montreux Convention forbids belligerent nations' warships from passing through the straits in time of war, but permits those warships to sail through the straits to return to their bases. Furthermore, in time of war, the convention stipulated that should Turkey be in a state of belligerency (Articles 20) and considers itself to be threatened with imminent danger of war (Article 21), the passage of warships shall be left entirely to the discretion of the Turkish government.

China, following Russia, declaring opposition to NATO's expansion to the east, and Russia expressing respect for the "One China" policy and opposition to any form of independence of Taiwan. Russia, which is internationally isolated with its aggression against Ukraine and has sustained significant losses, especially in its ground forces, will likely find its political and military cooperation with China more important than ever. Even before the Russia's aggression against Ukraine, Russia had moved to strengthen its military cooperation with China in the area surrounding Japan, such as joint flight of bombers and joint navigations of naval vessels by the Russian and Chinese militaries. In response to Russia's aggression against Ukraine, it is necessary to monitor the possibility of deeper military cooperation between China and Russia with concern, including cooperation in the Far East and East Asia where the two countries are situated.

See Chapter 3, Section 2-3 (Relations with Countries and Regions) the column in Chapter 3, Section 5-5 (The developments of the military cooperation between Russia and China: The repercussions of "strategic coordination")

In addition, it is pointed out in Taiwan that the Russia's aggression against Ukraine may affect Chinese Taiwan policy. Meanwhile, Taiwanese President Tsai Ing-wen says that the situations surrounding Ukraine and Taiwan are fundamentally different and has given instructions about raising their early warning of military developments around the Taiwan Strait and strengthening their response to "cognitive warfare" by "external forces" against Taiwan. Tsai emphasized the importance of national defense by the unity of the whole Taiwanese people and ordered the Ministry of National Defense to continue to conduct a rolling review of implementation and progress of the new reservist training system whose education and call-up period was extended experimentally in 2022. In addition, Taiwan Defense Minister Chiu Kuo-cheng announced following the Russia's aggression against Ukraine that he would incorporate the Ukrainian experience into part of his asymmetrical warfare plan continuously strengthening asymmetrical forces. Furthermore, Taiwanese Foreign Minister Joseph Wu says that China will inevitably have to monitor the war between Russia and Ukraine closely and that China may reevaluate its ability to invade Taiwan and the reaction from the international community amid the situation. It is necessary to continue to monitor the related situations closely with a focus

on the fact that Taiwan views the effect of the Russia's aggression against Ukraine on China-Taiwan relations from a calm and multi-faceted perspective, including a medium-to-long-term point of view.

See Chapter 3, Section 3-3 (Military Capabilities of Taiwan and Military Balance between China and Taiwan))

North Korea voted against the UN General Assembly's resolution demanding the immediate withdrawal of Russian troops from Ukraine and claims that the United States and other Western countries are to blame for the conflict in Ukraine. North Korea, showing its stance of defending Russia, makes claims consistent with its own stance of blaming the United States, with which it is in rivalry in the long term.

See Chapter 3, Section 4-1-5 (Relations with States and Regions)

India, which has traditionally deep relations with Russia in a "Special and Privileged Strategic Partnership," avoids explicit criticism of Russia regarding its invasion of Ukraine, emphasizing the immediate cessation of hostilities and violence and a resolution through dialogue and diplomacy. After the Russian invasion of Ukraine, while Indian Prime Minister Narendra Modi had spoken on telephone with both President Putin and President Zelenskyy, as well as the United States and the Quad leaders; Japan, the United States and Australia, India avoids a direct mention of Russia in any of its joint statements and maintains its own stance against the backdrop of a military cooperation with Russia. Russia's share in Indian arms imports on an amount basis in the past five years is approximately 50%, and in April 2022 the delivery of the second regiment of Russian-made S-400 surface-to-air missile, which had contracted for purchase, was reported. India maintains its strong cooperation with Russia in terms of military equipment and it is necessary to pay attention to the response of India, including the effect of the Russian invasion of Ukraine.

See Chapter 3, Section 5-5-5 (1) (Relations with Asian Countries)

Section 1 The United States

1 Security and Defense Policies

President Biden, who took office in January 2021, called for the necessity of unity, not division, to the American people in his inaugural address, while towards the international community, he expressed his basic stance that the United States will engage itself in the world again by repairing its alliances, and lead the world not merely by the example of its power but by the power of its example. In regard to the point of showing power, President Biden stated in his remarks to the Department of Defense (DoD) in February 2021 that he would not hesitate to use force when necessary, but he also emphasized his belief that “force should be a tool of last resort, not first.” This stance differed from the former Trump administration’s “America First” policy and realist concept that power plays a central role.

In addition, in a speech on diplomatic policy in the same month, the President expressed his recognition that the country would have to respond to a new era with global issues such as the spread of infectious diseases, climate change, and nuclear proliferation, as the authoritarianism by China and Russia progresses. The President then stated that these issues would not be dealt with by the United States alone and expressed the need to work closely with U.S. allies and partners, recognizing alliances as the greatest asset to the country. In addition, President Biden also indicated that there is no longer a bright line between foreign and domestic policies, and that the United States would place an urgent focus on domestic economic renewal.

With regard to military policy, in November 2021 the DoD released the results of the “Global Posture Review”¹ of the U.S. forces, which had been studied at the DoD under President Biden’s direction. The DoD consulted closely with allies and partners in conducting the

review. In regard to the Indo-Pacific region, the DoD has indicated that it directs additional cooperation with allies and others to advance efforts to deter potential Chinese military aggression and threats from North Korea.

In the Interim National Security Strategic Guidance (hereinafter “Interim Guidance”) published in March 2021, the Biden administration announced the policy to put the highest priority on the U.S. military presence in the Indo-Pacific and Europe. In particular, the administration described China as “the only competitor with the potential ability to mount a sustained challenge to a stable and open international system” and indicated its intent to counter China for a long term.

The Biden administration has adopted a policy focused on initiatives based on a tough stance towards China, which would allow the United States to win strategic competition with China by rebuilding American advantage through reinforcing domestic economic foundations, reclaiming its leading role in international institutions, defending democratic values at home and around the world, modernizing U.S. military capabilities, and revitalizing its alliances and partnerships. In addition, in the FY2022 budget request announced in May 2021 the DoD indicated its intent to prioritize countering threat from China, followed by the threats posed by Russia, North Korea, Iran, and others. It also indicates the Biden administration’s position to place the highest priority on competition with China.

The Biden administration has been working to address human rights issues in its relations with China. The Uyghur Forced Labor Prevention Act was passed in December 2021, prohibiting the import of all products produced in the Xinjiang Uyghur Autonomous Region unless the company could prove the products were not

1 On November 29, 2021, the DoD released the Global Posture Review, which assesses the U.S. forces posture around the world and provides guidance for future posture planning.

made by forced labor. The administration also positioned the Chinese government's oppression of the Uyghur people as "genocide," and did not send government representatives to the Olympic Winter Games in Beijing, citing human rights violations in the Xinjiang Uyghur Autonomous Region.

In regard to relations with Taiwan as it relates to China, the United States has not changed its "One China" policy. On top of this, it has positioned Taiwan as both a major democratic partner and a major economic and security partner, and has shown a willingness to promote engagement with Taiwan. As one example, sales of defense equipment to Taiwan have continued under the Biden administration as well.

 See Section 3-2-3 (Taiwan)

While the Biden administration has positioned relations with China as strategic competition, the administration has shown its intention to pursue cooperation with China in areas with shared interests such as climate change and arms control, and become involved in issues with China by working with its allies and partners.

In regard to relations with North Korea, the administration announced the completion of a review of its policy toward North Korea in April 2021, and has indicated that it intends to advance diplomacy with North Korea through a "calibrated, practical approach" with the goal of "complete denuclearization of the Korean Peninsula." The administration has also made clear its intention to advance its consideration in consultation with allies and partners, such as the ROK and Japan, at every step of the response to North Korea.

Concerning Europe, with regard to relations with Russia, the United States and Russia agreed to start new Strategic Stability Dialogues at the first U.S.-Russia summit meeting held under the Biden administration in June 2021. Since then, multiple dialogues have been held. On the other hand, while the U.S. and Russia had been coordinating an easing of tensions between the two countries surrounding the situation in Ukraine including U.S.-Russia summit meetings (video teleconference, teleconference) held in December 2021, the U.S. has made continued efforts to thwart Russia's aggression by providing Ukraine with a considerable amount of defense

equipment and imposing strict sanctions against Russia alongside its allies and other countries, followed by start of Russia's aggression against Ukraine in February 2022. In addition, the aforementioned Global Posture Review clearly states that it strengthens the U.S. combat-credible deterrent against Russian aggression and enables NATO forces to operate more effectively. The Biden administration also rescinded the 25,000 active-duty force cap in Germany and the Army Multi-Domain Task Force² and other personnel in Germany would be permanently stationed. It is important to pay attention to the future developments of the U.S. force's posture in response to the situation in Ukraine.

In regard to the Middle East, the U.S. military withdrew from Afghanistan at the end of August 2021, ending the 20-year U.S. military presence in the region. President Biden, in his statement on the conclusion of the war in Afghanistan that was the longest war in U.S. history, expressed his view that it was not in the U.S. national interest to continue deploying the U.S. forces in Afghanistan and the United States must focus on strengthening its competitiveness to meet new 21st century challenges such as serious competition with China. The end of the combat mission of the U.S. forces in Iraq was also announced in December 2021. The U.S. forces that continue to be stationed in Iraq have the missions to provide advice, support, and training to the Iraqi military forces. In addition, regarding the nuclear agreement with Iran, from which the former Trump administration declared its withdrawal in May 2018, the Biden administration has stated its position that it would return to the agreement as a starting point for further negotiations if Iran would return to strict compliance with the nuclear agreement. The administration has continued talks with Iran since April 2021 toward rebuilding the nuclear agreement, but concrete progress has not been seen.

The Biden administration has indicated that its foreign policy direction will be based on international cooperation and that its responses will be made in close collaboration with allies and partners. As concrete moves for this, in September 2021, the leaders of Japan, the United States, Australia, and India held the first in-person summit meeting as the "Quad." The leaders affirmed that their countries, as democratic partners with a common vision, would unite to address major contemporary challenges

² The Multi-Domain Task Force is an army unit with the mission of forward execution of the "multi-domain operations concept" which aims to defeat the enemy's Anti-Access/Area-Denial (A2/AD) by conducting operations in all domains (land, sea, air, space, cyber, electromagnetic spectrum, and the information environment including cognitive aspects).



The leaders of Japan, Australia, India, and the United States at the Quad Summit Meeting in September 2021 (in Washington, D.C.)

such as COVID-19 and emerging technologies, and affirmed their commitment to a “Free and Open Indo-Pacific.” In the same month, the leaders of Australia, the United Kingdom, and the United States announced the establishment of AUKUS, a new trilateral security cooperation framework aimed at deepening diplomatic, security, and defense cooperation in the Indo-Pacific region. AUKUS will deepen cooperation on various security and defense capabilities such as cyber and artificial intelligence. As the first initiative under AUKUS, the three countries agreed to cooperate for the acquisition of nuclear powered submarines by Australia.³ In April 2022, the countries announced that they will also deepen cooperation on hypersonic capabilities, electronic warfare capabilities, information sharing and innovation.

On the domestic political front in the United States, attention will be focused on how the midterm elections in November 2022 will affect U.S. security and defense policy.

1 Perception about Security Environment

The Biden administration indicates in the Interim Guidance that “we must contend with the reality that the distribution of power across the world is changing and creating new threats.” The Guidance shows a view that China and Russia have put considerable energy into weakening American power and obstructing the U.S. efforts to protect its interests and allies, with China in particular rapidly increasing its external assertions. In this regard, based on the recommendations submitted in June

2021 by the China Task Force established within the DoD, the DoD has begun department-wide efforts to improve its capabilities, including revitalizing its networks with allies and partners, in order to better respond to the security challenges posed by China, the greatest issue facing the United States. The current administration, in the Interim Guidance, positions Iran and North Korea as regional actors and evaluates that these countries “continue to pursue game-changing technologies, while threatening U.S. allies and partners and challenging regional stability.” In addition, the Biden administration also shows a view that the United States “faces challenges within countries whose governance is fragile, and from influential non-state actors that have the ability to disrupt American interests” and terrorism and violent extremism remain significant threats. In consideration of these recognitions, the United States, in line with the Trump administration, positions threats posed by China and Russia-with particular emphasis on China-as priority issues to be addressed and appears to implement a policy of dealing with threats posed by North Korea, Iran, and radical terrorist groups, as well as production, proliferation, and use of weapons of mass destruction. Furthermore, the Biden administration expresses high interest in the impact of climate change on security issues. In October 2021, Secretary of Defense Austin announced the Department of Defense Climate Adaptation Plan, which will serve as a guide for maintaining the readiness and resilience of the U.S. military in the future under increasingly severe environmental conditions. The Plan calls for addressing climate change challenges not only through DoD efforts but also across the entire federal government as well as with allies and partners.

2 Security and NDS

In March 2021, the Biden administration published the Interim Guidance to indicate the direction taken by the United States while the formulation of the national security strategy is still in progress. This Guidance states the necessity to renew the United States’ enduring advantages in order to meet today’s challenges from a position of strength, and that begins with the revitalization of democracy, which is the most fundamental advantage of the United States. More specifically, the Guidance

³ Although Australia had planned to procure 12 conventional submarines (attack-class submarines) from France, this plan was canceled because it was decided to acquire nuclear-powered submarines within the framework of the AUKUS.

shows the future direction of the country’s efforts in the form of: defending and nurturing the underlying sources of American strength including democracy, economy, national defense and so on; promoting a favorable distribution of power to deter and prevent adversaries; and leading and sustaining a stable and open international system. The administration also expresses in the Guidance that the United States is unable to achieve these objectives alone. For that reason, the United States will reinvigorate its alliances and partnerships around the world, while also showing its intention to work with allies to share responsibilities equitably and encourage them to invest in their own comparative advantages. In terms of the military aspect, the Biden administration ensures that the U.S. Forces will receive the best training in the world and continue to be a fully equipped armed forces, while shifting its “emphasis from unneeded legacy platforms and weapons systems to free up resources for investments in the cutting-edge technologies and capabilities.” In addition, the Guidance states the plan that the United States will prioritize defense investment in climate resiliency and clean energy.

While the Biden administration has been conducting a general review of its national security policy since announcing the Interim Guidance, the DoD released the fact sheet of the National Defense Strategy⁴ in March 2022. In the fact sheet, the DoD positioned China as the most consequential strategic competitor and the pacing challenge for the DoD, and expressed that it will prioritize responding to China’s challenge to sustain and strengthen deterrence, then Russia’s challenge which poses acute threat. The fact sheet also states that its alliances and partnerships are an enduring strength for the United States and the DoD will incorporate ally and partner perspectives, competencies, and advantages at every stage of defense planning. Furthermore, the DoD will advance its goals through three primary ways: (1) Integrated deterrence that maximizes U.S. national power by working seamlessly across warfighting domains, theaters, and network of alliances and partnerships; (2) Campaigning that strengthens deterrence and enables the United States to gain advantages against the full range of competitors’ coercive actions; and (3) Building enduring advantages through reforms to accelerate force development and getting the required technology quickly.



Japanese and U.S. naval vessels conducting a bilateral exercise in the South China Sea in October 2021

3 Engagement in the Indo-Pacific Region

The FY2022 budget request released in May 2021 included \$5.1 billion for the Pacific Deterrence Initiative (PDI), which aims to bolster deterrence and maintain a competitive advantage with China as the number one pacing challenge. The FY2022 National Defense Authorization Act passed in December 2021 increased the budget for the PDI to \$7.1 billion. The PDI includes the establishment of the “Guam Defense System” that will provide an integrated air and missile defense capability with 360-degree coverage to protect Guam from various missile threats, including hypersonic missiles. The specific details of the system will be the focus of attention going forward.

In February 2022, the Biden administration released the “Indo-Pacific Strategy” for the first regional strategy in the administration. This clearly indicated that the administration will continue to place the highest priority on the Indo-Pacific region as did the previous administration. The Indo-Pacific Strategy recognizes that the Indo-Pacific region faces increasing challenges, particularly from China, and makes clear that the United States will cooperate with allies and partners for efforts to advance a Free and Open Indo-Pacific and strengthen regional security. To implement the strategy, the “Indo-Pacific Action Plan” was also released, indicating the initiatives to be implemented over the next two years. The future progress of specific initiatives will gain attention.

In July 2020, regarding China’s maritime expansion, after the U.S. DoD expressed concern about China’s decision to conduct military exercises in the South China

⁴ Both the National Security Strategy (NSS) and the National Defense Strategy (NDS) are required by law to be submitted to Congress within a certain period of time. Titles 50 and 10 of the United States Code respectively stipulate that the NSS shall be submitted to Congress no later than 150 days after the date on which a new President takes office, and the NDS shall be submitted as soon as possible after a newly elected President has nominated a new Secretary of Defense, once the Senate has approved the nomination.

Sea, the United States deployed two Carrier Strike Groups in the South China Sea for the first time in about six years and conducted naval exercises. The Biden administration announced that the United States had deployed two Carrier Strike Groups in the South China Sea in February 2021 and also that U.S. carrier strike groups and amphibious ready groups had conducted integrated exercises in the same area in April 2021. The current administration expressed its intention to continue showing its allies and others in the region the efforts by the United States to promote a “Free and Open Indo-Pacific.” In July 2021, during his visit to Southeast Asia, Secretary of Defense Austin stated that China’s claim to the vast majority of the South China Sea has no basis in international law and that the United States would support coastal states in the region to uphold their rights under international law. In August 2021, in her speech in Singapore, Vice President Harris pointed out that China continued to coerce, intimidate, and make unlawful claims for territorial rights in the South China Sea, and that China’s actions undermine the rules-based order and continue to threaten the sovereignty of countries in the region. In addition, in January 2022, the State Department released a study examining China’s claims regarding its maritime rights in the South China Sea in light of international law. The study noted that China’s claims over most of the South China Sea are inconsistent with international law and gravely undermine the rule of law in the ocean.

As part of its activities around strengthening its presence in the Indo-Pacific region, the U.S. Navy which promotes Distributed Maritime Operations (DMO)⁵ deployed the USS America, an amphibious assault ship with enhanced ability to carry F-35B fighters and other carrier-based planes, to Sasebo in December 2019 to replace the amphibious assault ship USS Wasp. In addition, the amphibious transport dock USS New Orleans was also deployed to Sasebo that month. In Guam, the MQ-4C Triton maritime surveillance unmanned aircraft system underwent its first deployment in January 2020. The U.S. Air Force which promotes Agile Combat Employment (ACE)⁶ conducts ACE exercises in the Indo-Pacific region using fighter aircraft and unmanned aircraft. Furthermore, the U.S. Army which promotes a multi-domain operational concept plans to deploy a Multi-Domain Task Force in the region to undertake operations simultaneously in all

domains, including the aspect of human cognition. The Marine Corps which promote the Expeditionary Advanced Base Operations (EABO)⁷ has announced its intention to establish the Marine Littoral Regiment, which will focus on the sea control and sea denial missions, and deploy it in the region. In March 2018, the aircraft carrier USS Carl Vinson made the first port call by a U.S. aircraft carrier in over 40 years in Vietnam. Another port call in the country was made in March 2020, by the aircraft carrier USS Theodore Roosevelt.

The Biden administration announced that President Biden had asserted the maintenance of the vision of a “Free and Open Indo-Pacific” as a priority matter in the U.S.-China summit telephone talk in February 2021 to clarify the U.S. position to pursue the vision would remain unchanged. In addition, in regard to relations with the Philippines, President Duterte in July 2021 determined to recall the letter of the termination of the Visiting Forces Agreement, which stipulates the treatment of U.S. forces visiting the Philippines. Moreover, during the U.S.-Philippines defense ministers’ meeting in September 2021, Secretary of Defense Austin declared that the United States’ commitments under the U.S.-Philippines Mutual Defense Treaty extend to the Philippine armed forces, public vessels, and aircraft in the South China Sea. In this context, cooperative relations between the United States and the Philippines in the region have been strengthened. With this stance, since February 2021, the Biden administration has continued to conduct “Freedom of Navigation Operations” in the South China Sea, and U.S. Navy vessels have passed through the Taiwan Strait multiple times in order to show the U.S. commitment to a “Free and Open Indo-Pacific.” At this announcement, the United States clearly indicated that it bears a number of responsibilities in the Indo-Pacific region, with the protection of the rights and freedom of navigation in accordance with international law being one of the responsibilities, and therefore, the country would continue the Freedom of Navigation Operation.

Based on the posture towards the Indo-Pacific described above, the United States appears to continue to be undertaking initiatives based on its vision of a “Free and Open Indo-Pacific.”

In contrast, while talks between the United States and North Korea have been conducted since their first summit

5 An operational concept that masses overwhelming combat power by distributing each assets and integrating them through a network.

6 An operational concept that rapidly deploys combat forces and provides sustained logistical support.

7 An operational concept that executes front-line operations by rapidly dispersing and deploying within the enemy’s firepower zone and establishing temporary bases.

meeting in history held in June 2018, no specific progress has been seen with regard to the dismantlement of North Korea's missiles and weapons of mass destruction. Responding to that summit meeting, the U.S. DoD suspended the U.S.-ROK command and control exercise Ulchi-Freedom Guardian and the scheduled Vigilant Ace U.S.-ROK bilateral annual flying exercise, and then decided to conclude the Key Resolve and Foal Eagle series of exercises usually held by the United States and the ROK every spring. Then Acting Secretary of Defense Patrick Shanahan expressed a willingness to maintain U.S. Forces in the ROK, stating that close coordination between the military activities of the United States and the ROK will continue to support diplomatic efforts and that the two countries were committed to ensuring the continued combined defense posture of U.S.-ROK combined forces and maintaining firm military readiness.

Amid this situation, since May 2019, North Korea has repeatedly conducted ballistic missile launches and announced in December 2019 that it would continue to develop strategic weapons until the United States rolls back its hostile policy.

In January 2021, according to North Korea's announcement, Chairman Kim Jong-un called the United States North Korea's "biggest enemy" and expressed his view that whoever would be in power in the United States, the U.S. policy on North Korea would not change, while also remarking that the key to establishing a new U.S.-North Korea relationship would be the withdrawal of the hostile policy by the United States. Furthermore, at a meeting of the Politburo of the Workers' Party of Korea in January 2022, it was assessed that the "hostile policy and military threat by the U.S. have reached a danger line that cannot be overlooked anymore," and it was announced that North Korea would "promptly examine the issue of restarting all temporarily suspended activities."

The Biden Administration sees that North Korea continues with its nuclear and missile plans, positions it as an urgent priority issue to the United States, and clarifies its policy of continuing to work on the denuclearization of the Korean Peninsula. At the Japan-U.S. Security Consultative Committee (Japan-U.S. "2+2") held in January 2022, the two countries reaffirmed their commitment to the complete denuclearization of the Korean Peninsula and expressed strong concern about the progress of North Korea's nuclear and missile development. At the present point, concrete progress on the disarmament of North Korea's weapons of mass

destruction and missiles has not been seen. However, attention will be paid to how the United States advances its policy toward North Korea.

In addition, it has been pointed out that U.S. involvement in the Indo-Pacific region may be impacted as a result of having to focus efforts on the European front in response to the Russia's aggression against Ukraine. However, the U.S. military's "Global Posture Review" released in November 2021 positions the Indo-Pacific as a priority region, and on top of this, the fact sheet of the NDS released in March 2022 also states that the challenge posed by China in the Indo-Pacific region is a top priority. As such, it remains to be seen how U.S. involvement in the Indo-Pacific region will shift moving forward.

 See Section 4-1-5 (1) (Relations with the United States)

4 Innovation in the National Defense Field

In President Biden's remarks at the DoD in February 2021, the Biden administration, emphasizing the importance of technologies in national defense strategies, stated that the United States would deal with dangers and opportunities generated through emerging technologies, enhance its capabilities in cyberspace, and lead in a new era of competition from deep sea to outer space. With regard to strategic competition with China, President Biden has indicated the view that technological competition including innovation would become one of the central issues. In the FY2023 budget request released in March 2022, the DoD prioritized investment in cyber and innovation including artificial intelligence, for which the largest ever \$130.1 billion RDT&E budget for innovation and modernization has been requested. As such, attention should be paid to further efforts in this area.

5 Nuclear and Missile Defense Policy

The Nuclear Posture Review (NPR) released by the Trump administration in February 2018 stated that, although the United States had reduced the role and number of nuclear weapons based on the aspiration that if the United States took the lead in reducing nuclear arms, other states would follow, the global threat conditions have worsened markedly since the previous NPR released in 2010 and there now exist unprecedented threats and uncertainty, as China and Russia have expanded their nuclear forces and North Korea continues its pursuit of nuclear weapons

and missile capabilities. Given these circumstances, the following were raised as the roles of U.S. nuclear forces: (1) Deterrence of nuclear and nonnuclear attacks; (2) Assurance of allies and partners; (3) Achievement of U.S. objectives if deterrence fails; and (4) Capacity to hedge against an uncertain future.

Also, while the United States would only consider the employment of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its allies, and partners, the NPR clearly states that extreme circumstances could include significant non-nuclear strategic attacks against the United States and its allies, and a “no first use” policy is not justified today. It also indicates that the United States maintains a policy of retaining some ambiguity regarding the precise circumstances that might lead to a U.S. nuclear response. Furthermore, it also revealed that the United States would apply a tailored approach to deterrence across a spectrum of adversaries, threats and contexts, and in addition, would ensure effective deterrence by enhancing the flexibility and range of its nuclear capabilities through nuclear modernization and the development and deployment of new capabilities. Specifically, in addition to sustaining and replacing the nuclear triad,⁸ as new capabilities, in the near-term, the United States would modify a small number of existing submarine-launched ballistic missiles (SLBM) warheads to provide a low-yield option, and incorporate nuclear capability onto F-35A fighters as a replacement for the current aging dual-capable aircraft (DCA).

On August 2, 2019, the Trump administration withdrew from the Intermediate-Range Nuclear Forces (INF) Treaty with Russia as the administration alleged that Russia violated the treaty. In the same month, the United States conducted a flight test of a conventionally-configured ground-launched missile with a range of more than 500 km. In this regard, the United States has been working on the development of intermediate-range, conventional, and ground-launched missiles whose test launches, production and possession had been restricted by the treaty.

In the Interim Guidance, the Biden administration states that the United States will “take steps to reduce the role of nuclear weapons in our national security strategy, while ensuring our strategic deterrents remain safe,

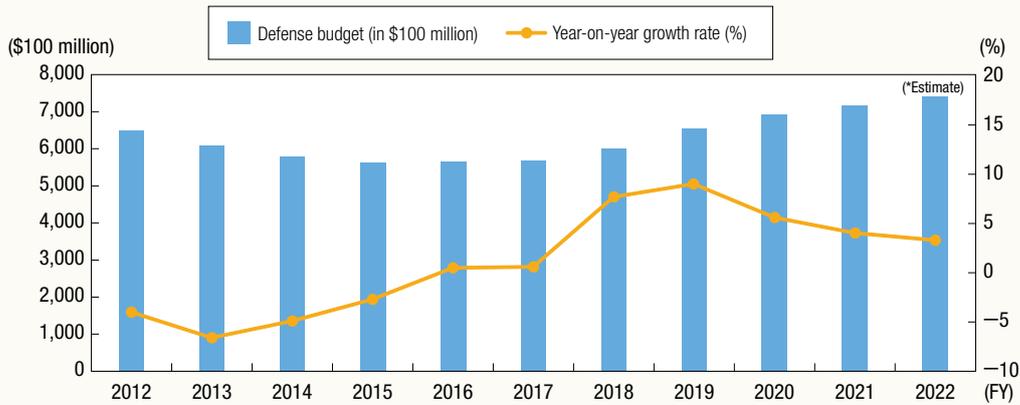
secure, and effective, and that our extended deterrence commitments to our allies remain strong and credible.” The administration also mentions its intention to avoid costly arms races, to pursue the establishment of a new arms control framework if possible, and to “engage in meaningful dialogue with Russia and China on a range of emerging military technological developments that implicate strategic stability.” In February 2021, the Biden administration extended the New START Treaty (Strategic Arms Reduction Treaty) for five years until February 5, 2026, based on the agreement with Russia. The extension of the New START Treaty seems to be based on the administration’s plan indicated in the Interim Guidance. President Biden stresses that the New START Treaty extension is only the beginning of U.S. efforts to address 21st century security challenges, and the country will pursue further enhancement of the framework for controlling nuclear weapons, using the time provided by a five-year extension. First of all, regarding the New START Treaty to which launchers, deployed missiles, bombers, and deployed nuclear warheads related to nuclear triad are subject, the administration indicates that it will pursue the framework for arms control that addresses all kinds of nuclear weapons with the Russian Federation, in consultation with Congress and U.S. allies and partners. In addition, President Biden indicates that the United States will also pursue the arms control framework to reduce risks by China’s modern and growing nuclear arsenal.

In March 2022, the fact sheet of the “2022 Nuclear Posture Review” was released, indicating that maintaining a safe, secure, and effective nuclear deterrent and strong and credible extended deterrence commitments remain a top priority for the U.S. It also indicates that the U.S. will continue to emphasize strategic stability, seek to avoid costly arms races, and facilitate risk reduction and arms control arrangements where possible, while it underscores the U.S. commitment to reducing the role of nuclear weapons and reestablishing the U.S. leadership in arms control. Upon completion of the Review, President Biden articulated his vision for the U.S. nuclear deterrence strategy, stating that for as long as nuclear weapons exist, the fundamental role of U.S. nuclear weapons will be to deter nuclear attacks against the U.S., its allies and partners, and that the U.S. would

⁸ The nuclear triad consists of Minuteman III ICBM, Ballistic Missile Submarines (SSBN) armed with Trident II D5 SLBM, and B-52 and B-2 strategic bombers armed with nuclear cruise missiles and nuclear bombs.

Fig. I-3-1-1

Changes in the U.S. Defense Budget



Notes: 1. Figures shown are narrowly defined expenses based on historical tables (outlays).
2. The amount for FY2022 is an estimate.

only consider the employment of nuclear weapons in extreme circumstances to protect the vital interests of the U.S., its allies and partners.

[See](#) Section 5-3-1 (Nuclear Forces)

The fact sheet of the “Missile Defense Review” (MDR) was also released in March 2022. The fact sheet indicates that within the broader context of the NDS, the MDR provides a framework for U.S. missile defense that is informed by the evolving missile threat environment and missiles are a principal means for projecting military power, which makes missile defense a key component of integrated deterrence. It also states that the MDR assures the vital contributions of missile defenses to a resilient defense posture that reduces adversary confidence in missile use, reassures Allies, and offers military options to avoid risks of escalation.

6 FY2023 Budget

In March 2022, the Biden administration released the

President’s request for FY2023 discretionary funding. The President’s discretionary request for the DoD is approximately US\$773 billion, an approximately 4.1% increase from the previous year. The DoD indicates that this budget request is to support the implementation of the new National Defense Strategy (NDS) and recognizes China as its key strategic competitor and pacing challenge, while Russia remains an acute threat to the interests of the U.S. and its allies.

On that basis, the DoD focuses on investment in (1) Integrated deterrence, (2) Campaigning, and (3) Building enduring advantages, placing priority on countering China and Russia as well as investing in space, nuclear triad, cyber, and innovation and modernization including AI.

The DoD also requests \$6.1 billion for the Pacific Deterrence Initiative and the largest ever \$130.1 billion RDT&E budget for innovation and modernization. The goals for military end strength include securing 1,328,300 troops, a decline of around 4,100 from FY2022, and, in terms of equipment, the procurement of 61 F-35 fighters.

[See](#) Fig. I-3-1-1 (Changes in the U.S. Defense Budget)

2 Military Posture

1 General Situation

The operation of the U.S. Forces is not controlled by the individual branches of the broader armed forces; rather it is operated under the command of the Unified Combatant Commands, composed of forces from multiple branches of the armed forces. The Unified Combatant Commands consist of four commands with functional responsibilities

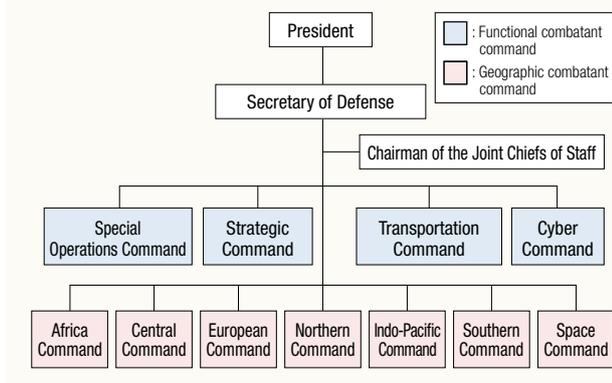
and seven commands with regional responsibilities.

The U.S. ground forces have about 470,000 Army soldiers and about 180,000 Marines, which are forward-deployed in Germany, the ROK, and Japan, among other countries.

The U.S. maritime forces have about 970 vessels (including about 70 submarines) totaling about 7.3 million tons. The 7th Fleet is responsible for the western Pacific

Fig. I-3-1-2

Structure of the Unified Combatant Commands



See Fig. I-3-1-2 (Structure of the Unified Combatant Commands)

2 Current Military Posture in the Indo-Pacific Region

The United States, a Pacific nation, continues to play an important role in ensuring the peace and stability of the Indo-Pacific region by deploying the Indo-Pacific Command, a combatant command integrating the Army, Navy, Air Force and Marine Corps in the region. The Indo-Pacific Command is a geographic combatant command which is responsible for the largest geographical area, and its subordinate unified commands include U.S. Forces Japan and U.S. Forces Korea.

The Indo-Pacific Command consists of the U.S. Army Pacific, U.S. Pacific Fleet, U.S. Marine Corps Forces Pacific, and U.S. Pacific Air Forces, which are all headquartered in Hawaii.

The Army Pacific's subordinate commands include the 25th Infantry Division in Hawaii, the 8th U.S. Army in the ROK, which is the Army component of the U.S. Forces in the ROK, and the U.S. Army Alaska. Additionally, the Army Pacific assigns approximately 2,500 personnel to commands in Japan, such as I Corps (Forward) and the Headquarters, U.S. Army Japan Command.¹¹

The U.S. Pacific Fleet consists of the 7th Fleet, which is responsible for the Western Pacific and the Indian Ocean, and the 3rd Fleet, responsible for the East Pacific and Bering Sea. The U.S. Pacific Fleet in total controls about 200 vessels. The 7th Fleet mainly consists of a carrier strike group with main stationing locations in Japan and Guam. Their mission is to defend territorial lands, people, sea lines of communication, and the critical national interests of the United States and its allies. An aircraft carrier, amphibious ships, and Aegis cruisers among others are assigned to the 7th Fleet.

The U.S. Marine Corps Forces Pacific deploys one Marine Expeditionary Force each in the U.S. mainland and Japan. Of this force, about 20,000 personnel are in the 3rd Marine Division, the 1st Marine Aircraft Wing, which employs F-35B fighters and other aircraft, and other divisions in Japan. In addition, the force deploys maritime pre-positioning ships loaded with heavy equipment and others in the Western Pacific.

The U.S. Pacific Air Force has three air forces, of

and the Indian Ocean; the 3rd Fleet in the eastern Pacific; the 4th Fleet in South America and the Caribbean Sea; the 2nd Fleet in U.S. East Coast, North Atlantic Ocean, and Arctic Ocean; the 6th Fleet in the Mediterranean Sea and Africa; and the 5th Fleet in the Persian Gulf, the Red Sea, and the northwest Indian Ocean.

The U.S. air forces have roughly 3,500 combat aircraft across the Air Force, Navy, and Marine Corps. In addition to carrier-based aircraft deployed at sea, part of the tactical air force is forward-deployed in Germany, the United Kingdom, Japan, and the ROK, among others.

In regard to strategic offensive weapons including nuclear force, the United States proceeded with its reduction based on a new Strategic Arms Reduction Treaty that came into force in February 2011. It announced that its deployed strategic warheads⁹ stood at 1,389, while its deployed delivery platforms stood at 665.¹⁰ The United States is studying the concept of a Conventional Prompt Global Strike (CPGS), as an effort contributing to the nation's new ability to reduce reliance on nuclear weapons.

Moreover, in addressing the increasing threats in cyberspace, in May 2018, the Cyber Command, which was previously a subunified command under U.S. Strategic Command, was elevated to a unified combatant command.

In August 2019, the United States founded the Space Command to serve as a geographic unified combatant command and then established the Space Force as the sixth branch of the military within the Department of the Air Force that December.

⁹ Warheads that have been equipped in deployed ICBMs and SLBMs and nuclear warheads equipped in deployed heavy bombers (a deployed heavy bomber is counted as one nuclear warhead).

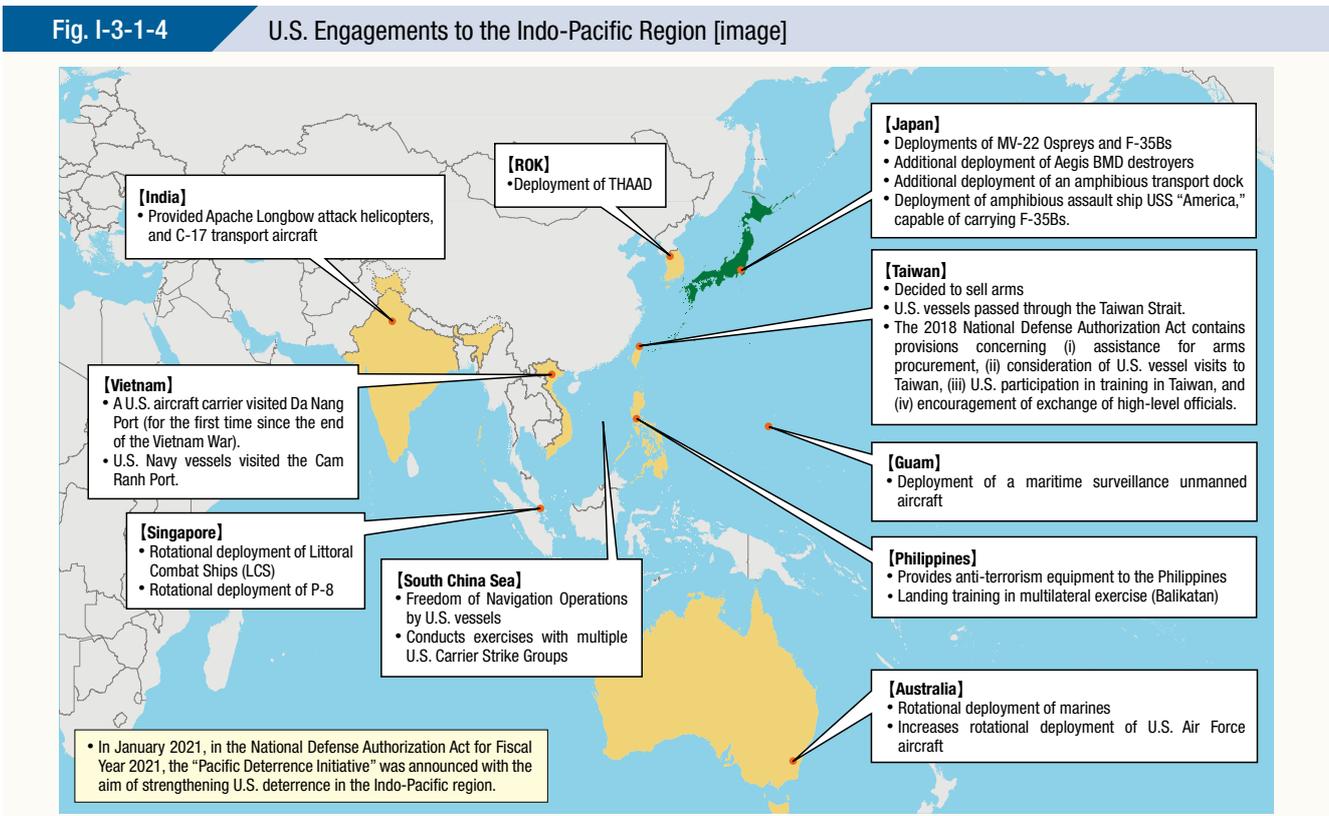
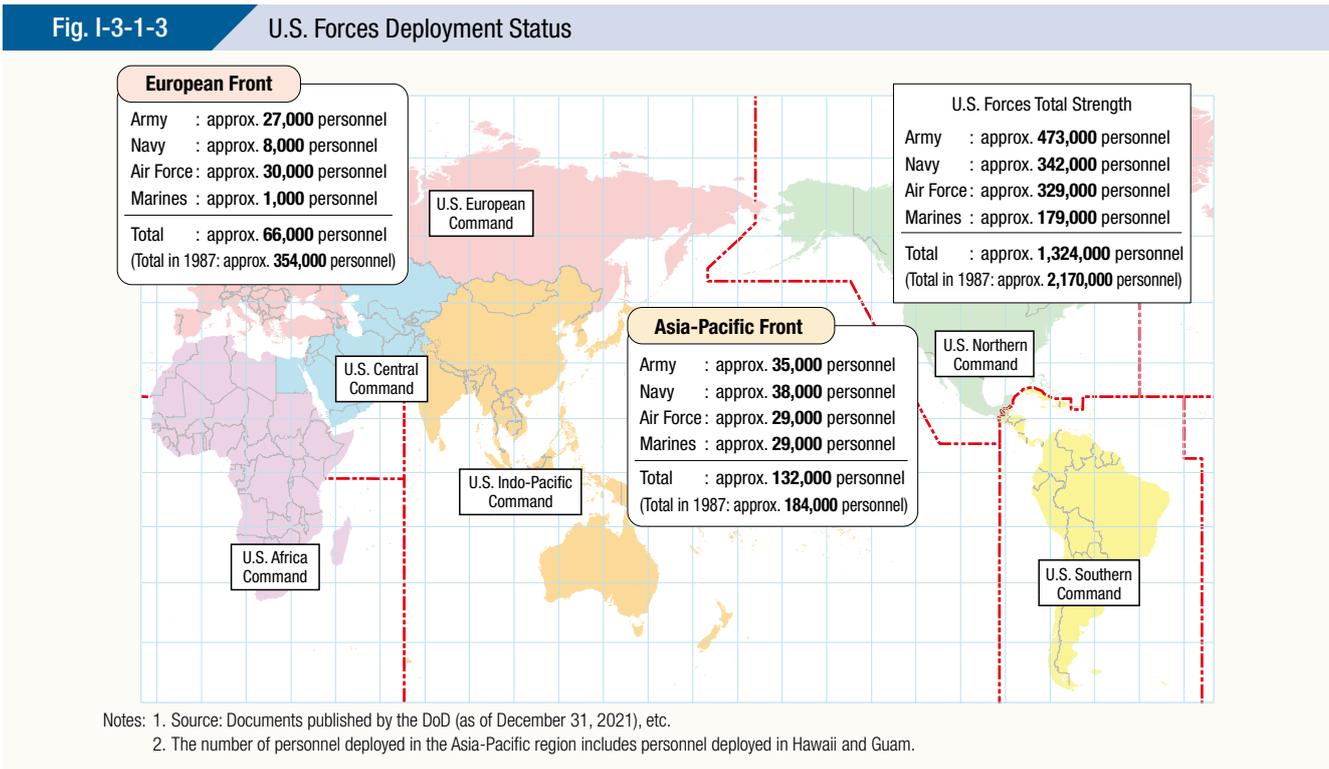
¹⁰ The figure as of September 1, 2021.

¹¹ The figures of the U.S. Forces mentioned in this paragraph are the numbers of active personnel recorded in the published sources of the U.S. DoD (as of December 31, 2021), and could change according to unit deployment.

which three air wings (equipped with F-16 fighters and C-130 transport aircraft) are deployed to the 5th Air Force stationed in Japan and two air wings (equipped with F-16 fighters) to the 7th Air Force stationed in the ROK.



Fig. I-3-1-3 (U.S. Forces Deployment Status)
Fig. I-3-1-4 (U.S. Engagements to the Indo-Pacific Region [image])



Section 2

China

1 General Situation

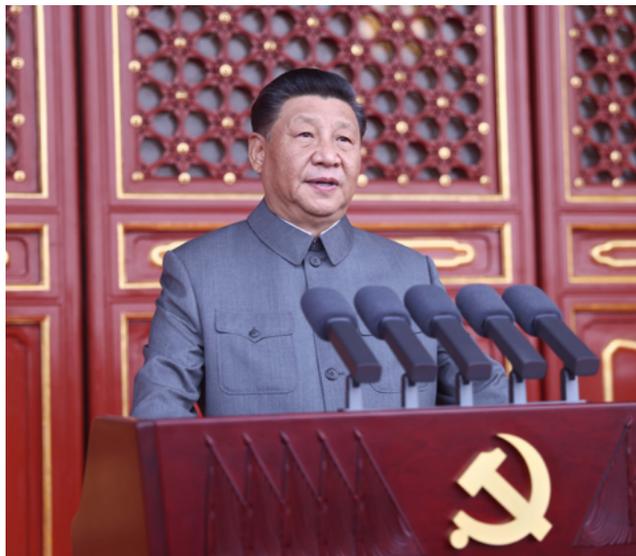
China, the world's most populous country, has a vast landmass surrounded by a long borderline as well as a long coastline. It also has various races, religions, and languages. China's pride in its unique history of having shaped a distinct culture and civilization, and semi-colonial experience in and after the 19th century are driving its desire for a strong nation and fueling its nationalism.

China faces various domestic problems including human rights issues. Among the problems emerging are the spread of bribery and corruption among the leadership of the Chinese Communist Party (CCP) and such issues as disparities between urban and rural areas, and between coastal and inland regions, as well as disparities within cities and environmental pollution. More recently, the pace of China's economic growth has slowed and the country is also expected to face issues associated with the rapid aging of the population, including problems related to pensions and other aspects of the social security system. The range of factors potentially destabilizing government administration has thus been expanding and becoming increasingly diverse. Additionally, there have been protests about human rights violations against ethnic minorities in China and campaigns pursuing separation and independence of the Tibet Autonomous Region, the Xinjiang Uyghur Autonomous Region, and elsewhere. The international community has grown interested in human rights conditions in the Xinjiang Uyghur Autonomous Region. In addition, in Hong Kong, in response to a series of large-scale protests occurred since 2019, the "Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region" was established and entered into force in June 2020. This has resulted in people being arrested for violating the Act. Moreover, popular concern over the measures has spread, including the fact that under the electoral system in Hong Kong which was changed touting the idea of "Patriots governing Hong Kong," "pro-China" candidates took nearly all the seats in the December 2021 legislative election. Amid these circumstances, the Chinese Government has been tightening its control over society. While it has been suggested that the development of the Internet and other areas of information and communications technology (ICT)

has made it difficult to control activities of the masses, it has been noted that rapidly developing ICT technologies are exploited for social control. Since 2014, China has enacted laws based on "a holistic view of national security" that covers not only external threats but also culture and society. Those laws include the Anti-Spy Law enacted in November 2014 to enhance domestic counter-espionage arrangements, a new National Security Law in July 2015, an Anti-Terrorism Law in January 2016 to strengthen state control, the Law on Management of Domestic Activities of Overseas Non-governmental Organizations in January 2017 to enhance control on foreign non-governmental organizations (NGOs), and the National Intelligence Law in June 2017.

The "anti-corruption" movement following the launch of the Xi Jinping leadership has made inroads under the policy of cracking down on both "tigers" and "flies," targeting both dominant figures and junior officials. People including former prominent leaders of the Party and military have strictly been charged with "corruption." General Secretary Xi has stated that "corruption is the greatest threat our Party faces," indicating that the "anti-corruption" movement will continue.

Through these developments, the Party has demonstrated a growing willingness in recent years to further bolster the power base of General Secretary Xi in the CCP. For example, it decided at the 19th National Congress in October 2017 to incorporate "thoughts," namely the political philosophy, under the name of General Secretary Xi Jinping into the Party constitution as a guideline. This was the first time since President Mao Zedong that a leader had his name in a guideline before retirement. Moreover, at the first plenary session of the 13th National People's Congress held in March 2018, a resolution was adopted to revise the constitution and abolish term limits for China's president, which indicates that Xi Jinping is further consolidating power as state leader. In this situation, the "thoughts on strengthening the military," which aims to realize the world-class forces was proposed, and "Xi Jinping's thoughts on strengthening the military" was incorporated into the Party constitution at the 19th National Congress in 2017 to become thoughts for guiding the People's Liberation Army



General Secretary Xi Jinping delivers a speech during the celebration of the 100th anniversary of the founding of the Chinese Communist Party in July 2021
[China News Service/Jiji Press Photo]

2 Military Affairs

1 General Situation

For more than 30 years, China has sustained high-level growth of its defense budget without transparency, engaging in broad, rapid improvement of its military power in qualitative and quantitative terms with focus on nuclear, missile, naval and air forces. In doing so, it has attached importance to strengthening its operational capabilities for steadily acquiring information superiority as a means of both enhancing operational capabilities throughout the Chinese military and gaining asymmetrical capabilities to effectively impede enemies with overall military superiority from exerting their strength. Specifically, China has been increasingly emphasizing endeavors to achieve dominance in new domains. For example, it has been rapidly expanding its capabilities in the cyber domain, enabling it to disrupt enemy communications networks, and in the field of electromagnetic spectrum, which offers the potential to render enemy radar and other equipment ineffective, thereby hampering their ability to exercise their military might. In addition, it continues to build capacity to make it possible to restrict enemies' use of space. Bolstering these capabilities will reinforce China's "**Anti-Access/Area-Denial (A2/AD)**" capabilities and lead to the establishment of operational capabilities further afield. China is also prioritizing efforts to increase practical joint operational capabilities through military modernization including

(PLA). The "thoughts on strengthening the military" is the theoretical pillar of defense and military reforms promoted by President Xi, and it includes the absolute leadership of the party over the military, strong military reforms by strengthening military capabilities, placing utmost importance on civil-military fusion, military promotion based on science and technology, and law-based military governance. In addition, President Xi's "core position" in the CCP was reemphasized at the 100th anniversary of the founding of the CCP in July 2021 and at the 6th Plenary Session of the 19th Central Committee of the CCP held in November of the same year. President Xi's power base is expected to be strengthened in preparation for the 20th CCP National Congress in the latter half of 2022.

reforms. Additionally, while implementing a development strategy of **civil-military** fusion across the board, with the aim of promoting two-way links between military and civilian resources in technology development and various other fields, China is striving to develop and acquire cutting-edge technologies that can be used for military purposes.

KEY WORD

Anti-Access/Area-Denial (A2/AD) capabilities

The A2/AD capabilities represent a concept given by the United States. Anti-Access or A2 capabilities refer mainly to long-range capabilities to block adversaries from entering some operating zones. Area-Denial or AD capabilities refer to short-range capabilities to limit adversaries' freedom of action within operating zones.

KEY WORD

Civil-military fusion

Civil-military fusion is an initiative promoted by China as a national strategy designed to promote the military use of civilian resources and the civilian use of military technologies in peacetime as well as emergency, in addition to the traditional development of defense mobilization arrangements for emergency. In particular, initiatives in seas, outer space, cyberspace, artificial intelligence (AI), which are referred to as "emerging areas" for China are viewed as priority areas for civil-military fusion.

Cutting-edge technologies that China seeks to develop and acquire include game changing technologies that would dramatically change future warfare.

China's 2019 white paper, "China's National Defense in the New Era," released in July 2019, notes that "intelligentized warfare is on the horizon," indicating that attention should be paid to Chinese forces' efforts to use artificial intelligence (AI) technology.

Along with efforts to reinforce its operational capabilities, China is engaging in attempts to unilaterally change the status quo by coercion based on its own assertions incompatible with the existing international order, and has been expanding and intensifying its military activities in maritime and aerial domains, notably in the East China Sea. China, particularly regarding maritime issues where its interests conflict with others', continues to act in an assertive manner, which includes dangerous acts that could cause unintended contingencies. Moreover, moves to strengthen China-Russia cooperation, including military activities, have been further intensifying. Additionally, China continues to demonstrate its willingness to realize its unilateral assertions without making any compromises, steadily moving forward with efforts to change the status quo by coercion and to create a *fait accompli*.

The Chinese military leadership has exhibited the "struggle" against the Senkaku Islands, an inherent territory of Japan, the establishment of the "East China Sea Air Defense Identification Zone (ADIZ),"¹ its Navy and Air Force's "regular patrols," and others as the achievements of the military forces' activities and emphasized to continue improving the Chinese military's operational capabilities. Furthermore, the Chinese military forces have rapidly expanded and intensified activities including those in the areas surrounding Japan, such as the East China Sea, Pacific Ocean and Sea of Japan. Given these facts, there is a high probability that China would not only attempt to make such activities routine but also further expand and intensify them both qualitatively and quantitatively. These military trends, combined with insufficient transparency about China's defense policy and military affairs, have become a matter of grave security concern to the region including Japan and the international community, and such trends have further intensified in recent years, given the

modernization and diversification of China's nuclear and missile forces, the "intelligentization" of military forces through the acquisition of cutting-edge technologies, and the expansion and intensification of their activities surrounding Japan and other areas, and as such should be closely monitored with keen interest in the future.

2 Defense Policies

China has described the objectives of its defense policies and the missions of its military forces as: supporting the CCP's leadership, China's characteristic socialism system, and the modernization of its socialism, defending the nation's sovereignty, unification and security, backing the nation's sustainable "peaceful development" through protecting its maritime and overseas national interests, building strong national defense and massive military forces commensurate with the interests of the nation's security and the interests of development, and providing strong assurances for realizing the "Chinese dream" of the great revival of the Chinese nation. China contends that these national defense policies are "defensive" in nature.²

For the development of national defense and military forces, China has employed a policy of building the "system of modern military power with Chinese characteristics" by sustaining the military development under the party, the military buildup through reforms, military promotion based on science and technology, and law-based military governance, by pursuing practical capabilities that "can fight and win a war" by giving greater priority to the civil-military fusion, by promoting the fusion and development of mechanization and informatization, and by accelerating the intelligentization of military forces. This might have apparently deepened a policy of giving priority to the informatization of military forces based on a military strategy to win informatized local wars in response to the global trend of military development. Such military buildup in China apparently indicates that China has given top priority to dealing with a Taiwan contingency by improving its capabilities to deter or deny Taiwan's independence and foreign military support for the Taiwanese independence, and has recently considered the improvement of operational capabilities in more distant

1 On November 23, 2013, China established the "East China Sea ADIZ" including the Senkaku Islands misleadingly indicated as if they were China's territory. China requires aircraft flying in the zone to abide by rules set by its Ministry of National Defense and claims to take military "defensive emergency measures" against aircraft failing to do so, unduly infringing on the principle of freedom of overflight. Over the move to unilaterally change the status quo in the East China Sea, not only Japan but also the United States, the ROK, Australia, and the European Union (EU) expressed concerns.

2 According to the defense white paper "China's National Defense in the New Era" (July 2019).

waters to protect its expanding overseas interests.

Furthermore, China seems to emphasize not only physical means but also non-physical means in military affairs and warfare. It regards the concept of “Three Warfares” - “Media Warfare,” “Psychological Warfare,” and “Legal Warfare” - as part of the political work of the military. In addition, China has set forth a policy of coordinating military struggle closely with political, diplomatic, economic, cultural, and legal endeavors.

As for the future goals of the development of national defense and military forces, General Secretary Xi Jinping’s report to the 19th CCP National Congress in October 2017 and the defense white paper released in 2019 noted that China would try to (1) basically achieve mechanization and make great progress in informatization to dramatically improve strategic capabilities by 2020, (2) basically complete the modernization of national defense and military forces by 2035, and (3) generally transform Chinese forces into world-class forces by the mid-21st century. These goals reportedly indicate that the third stage of the “Three Stage Development Strategy” for the basic modernization of national defense and military forces by the middle of the 21st century would be achieved 15 years ahead of schedule. The goals thus might have been based on faster-than-expected progress in the military modernization for China itself. In addition, during the 5th Plenary Session of the 19th Central Committee of the CCP in October 2020, China expressed its determination to achieve a struggle goal for the 100th anniversary of the foundation of the PLA in 2027. The same was reemphasized at the 6th Plenary Session in 2021. This goal could have been newly set as an interim goal up to the second stage with the deadline for achievement in 2035, following the near achievement of the goal of the first stage described above.

However, China has recognized a wide gap between the real military modernization level and the level required for national security, and between Chinese and world-class military forces. Although China has not defined what it means by “world-class forces,” it has been pointed out that China may seek to develop a military that is equal to - or in some cases superior to - the U.S. military. Furthermore, it has also been pointed out that China aims to build “world-class forces” capable of “intelligentized warfare” by acquiring

advanced technology and becoming an “innovation superpower.”³ In light of this, it is suggested that China is planning to offset its military power gap with the U.S. military, and may recognize that the “intelligentization” of its forces is a necessary condition for this. It is thought that China will aim to build a military that “can fight and win a war” against the U.S. military in the “intelligentized warfare” in the future.⁴

Based on that recognition, it is expected that China will further accelerate the military modernization against the backdrop of national power development and General Secretary Xi’s enhancement of his power base in the CCP and expansion of his power as Chairman of the Central Military Commission⁵.

3 Transparency Concerning Defense Policies and Military Affairs

China has neither set out a clear and specific future vision of its military strengthening, nor ensured adequate transparency of its decision-making process in relation to military and security affairs. China has released a defense white paper almost every two years since 1998. Most recently, it released a defense white paper in July 2019 for the first time in approximately four years. The latest one was titled “China’s National Defense in the New Era.”

In those publications as well, China has not fully disclosed information such as specific weapons in possession, procurement goals and results, organization and locations of major units, records of main military operations and exercises, and a detailed breakdown of its national defense budget.

Incidents in which Chinese authorities provide factually inaccurate explanations or refuse to admit facts regarding Chinese military activities have been confirmed, inciting concerns over China’s military decision-making and actions. For example, the submerged transit of a Chinese Navy submarine through Japan’s contiguous zone around the Senkaku Islands was confirmed in January 2018, but China did not acknowledge this. Similarly, in the cases of submarines presumed to belong to China that were confirmed in the contiguous zone around Amami Oshima Island in June 2020 and September 2021, China did not

³ According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

⁴ There is a view that “intelligentization” of the military provides an excellent opportunity for a latecomer’s military to leap ahead in development and thereby rapidly surpass other advanced-level militaries.

⁵ The Central Military Commission is a leading and commanding organ to China’s armed forces. Formally, there are the CCP CMC and the People’s Republic of China CMC. However, each consists of the same members, indicating both commissions as an organ for the party to control the armed forces.

acknowledge them. On the contrary, there were some Chinese media reports that criticized the Japanese side by claiming Japan was making exaggerations.

Similarly, explanations that stoke concerns about Chinese military decision-making and actions are also evident in comments about the South China Sea, where China is seeking to unilaterally change the status quo and to create a *fait accompli*, including through militarization. At the press conference after the U.S.-China summit meeting in September 2015, President Xi Jinping stated “China does not have any intention to pursue militarization” in the South China Sea, but in February the following year, Foreign Minister Wang Yi described the facilities in the South China Sea as “necessary self-defense facilities” that China was developing in accordance with international law. In 2017, reports in official media asserted that China had rationally expanded the area of its “islands and reefs” in the South China Sea to “strengthen the necessary military defense.”

China’s influence in the international community has risen politically, economically, and militarily. It has become increasingly important for China to improve its transparency regarding defense policies and military affairs, provide fact-based explanations about its activities, and share and observe international rules as a responsible country in the international community to allay concerns about China. It is strongly hoped that China will increase transparency through such efforts as specific and accurate information disclosure.

4 National Defense Budget

China announced that its national defense budget for FY2022 was approximately 1,450.45 billion yuan (approximately 24,657.7 billion Japanese yen when the value is mechanically converted at 17 yen per yuan).⁶ This initial budget amount represented a growth of approximately 7.1% (approximately 95.1 billion yuan) compared to the initial budget amount for the previous fiscal year. China’s announced national defense budget recorded a double-digit increase almost every year between FY1989 and FY2015. The nominal size of China’s announced national defense budget grew approximately 39-fold in the 30 years from FY1992 and approximately 2.2-fold in the 10 years

from FY2012. China positions the buildup of defense capabilities as important a task as economic development. It is believed that China has continued to invest resources in the improvement of its defense capabilities in tandem with its economic development. However, there have been many years in which the announced annual national defense budget increase rate exceeded the economic growth (an increase in gross domestic product). Attention is to be paid to how the slowdown in China’s economic growth would affect its national defense budget.

In addition, it is noted that the amount of the announced defense budget is considered to be only a part of its actual military expenditures. For example, it is believed that the announced defense budget does not include foreign equipment procurement costs or research and development (R&D) expenses. According to an analysis of the U.S. DoD, actual defense spending in FY2021 was 1.1 to two times higher than stated in its official budget.⁷

As for a breakdown of the national defense budget, past defense white papers specified personnel, training and sustainment, and equipment expenses for the announced national defense budgets for FY2007, FY2009 and FY2010-2017 (and expenses for active, reserve and militia forces for FY2007 and FY2009). However, no more details have been given.

 See Fig. I-3-2-1 (Changes in China’s Announced Defense Budget)

5 Military Posture

China’s armed forces are composed of the PLA, the People’s Armed Police Force (PAP), and the militia. It is provided that these bodies be instructed and commanded by the Central Military Commission (CMC). The PLA is defined as a people’s force created and led by the CCP, comprising the Army, the Navy, the Air Force, the Rocket Force, the Strategic Support Force, the Joint Logistics Support Force, etc.

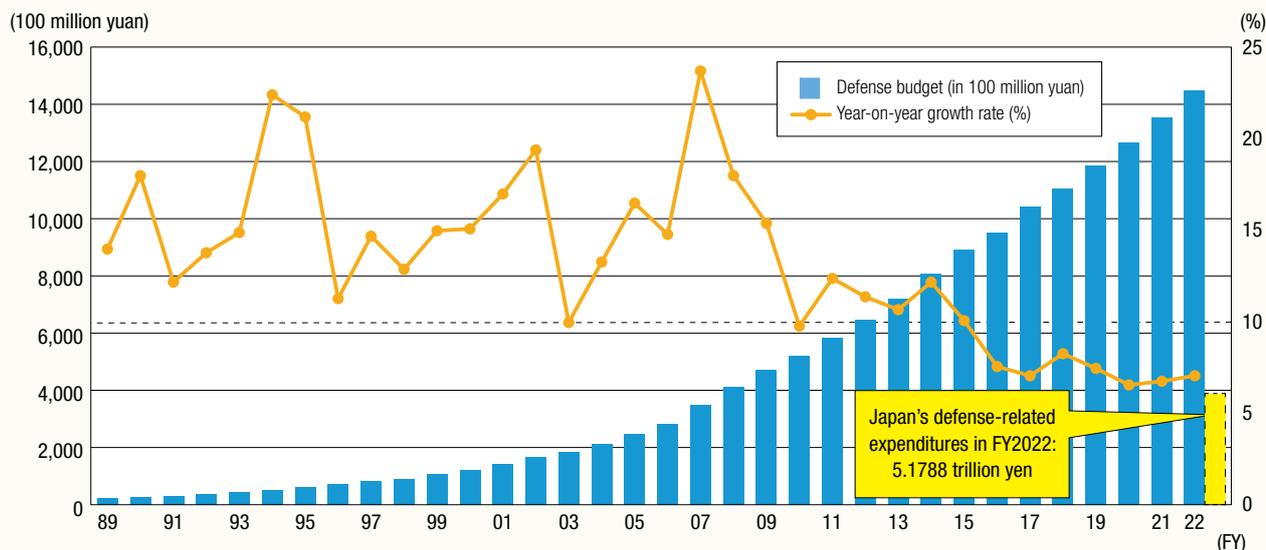
The PAP is designed to engage mainly in patrol, emergency response, counterterrorism, maritime rights protection and law enforcement, emergency rescue, defense operations, etc. The militia is planned to engage in economic construction, etc., in peacetime and undertake logistic support missions in an emergency.

⁶ China’s announced defense budget exceeded Japan’s defense-related expenditures in Chinese FY2007 and reached approximately 4.8 times as much as in Chinese FY2020 (automatically converted based on exchange rates of respective fiscal years). Japan’s defense-related expenditures have remained almost unchanged for around 20 years (approximately 1.1 times in 30 years). It has also been pointed out that in comparing defense expenditures between the two countries, China has exceeded Japan in terms of purchasing power parity since 2001.

⁷ According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

Fig. I-3-2-1

Changes in China's Announced Defense Budget



Note: This basically shows the defense budget within "the central government's general public budget," which had been named as "the central fiscal expenditures" prior to FY2014. Year-on-year growth rate compares the budget of a given year against the initial budget of the previous year. Note that FY2002 defense budget was calculated based on the increased amount from the defense budget in the previous FY because only the amount and rate of growth were released. For FY2016 and FY2018-2022, the amounts of "the central government expenditures," which are part of the central government's general public budget, are used because they were the only announced amounts. Figures for year-on-year growth rate include figures announced by China.

(1) Military Reforms

In recent years, China has been carrying out military reforms seen as the largest in its history. In November 2015, Chairman Xi unveiled China's official position on a specific direction of the military reforms for the first time, announcing that the military reforms would be carried out by 2020.

By the end of 2016, the so-called "above-the-neck" reforms in the center of the military were reported to have basically been completed. Specifically, they abolished the PLA's seven Military Regions and created five new Theaters with primary responsibility for command of operations, namely, the Eastern Theater, Southern Theater, Western Theater, Northern Theater, and Central Theater. In addition, they also formed the PLA Army (PLAA) Headquarters-ranked equally with the PLA Navy (PLAN) and PLA Air Force (PLAAF) Headquarters-, the Rocket Force (PLARF), the Strategic Support Force (PLASSF), and the Joint Logistics Support Force. Moreover, the headquarters for the entire PLA were replaced by 15 functional sections under the CMC, including the Joint Staff Department, Political Work Department, Logistics Support Department, and Equipment Development Department. Since 2017, military reforms have been making steady progress with the start of what are called full-scale "below-the-neck" military reforms at the field level. For example, the expansion of the Navy Marine Corps, whose missions

include amphibious landing operations, has been confirmed along with the unification of PAP leadership and command system under the CMC, and the reorganization of 18 Group Armies into 13, a reduction of 300,000 soldiers, the transfer of the coast guard to the PAP, etc.

It is considered that these series of reforms are designed to build more practical military forces by improving their joint operational capabilities and strengthening the military's readiness, including the development of military capabilities and organizational management in peacetime. In addition, it has been noted that the reorganization of the headquarters is a means of tackling corruption at the center of the military by decentralizing the leading organs. Since the 19th CCP National Congress in October 2017, many members seen as connected deeply to Chairman Xi have been appointed to the CMC. It has been noted that many officers trusted deeply by Chairman Xi have been promoted to senior positions and the rank of general. Given these points, it is thought that Chairman Xi is attempting to further enhance his leadership in the CMC and the military.

There are views that dissatisfaction is growing within the military and among veterans because of the rapid reforms. Given that China had promoted military reforms until 2020, the newly revised "National Defense Law of the People's Republic of China" (revised National Defense Law) was adopted at the 24th Session of the 13th Standing Committee of the China's National People's Congress in



Unmanned underwater vehicles exhibited at the 70th anniversary of China's founding (October 2019)
[Avalon/Jiji Press Photo]

December 2020. In this law, protecting China's overseas interests, penetration of "Xi Jinping's thoughts on strengthening the military," and space, electromagnetic spectrum, and cyberspace as critical security areas, etc., were newly stipulated. It was assumed that China was aiming to create an impression that it had achieved major policy and system reforms by enacting the revised National Defense Law in 2020. Attention will focus on the outcome of these military reforms.

(2) Nuclear and Missile Forces

China has continued independent efforts to develop nuclear weapons and missiles for their delivery since the mid-1950s, indicating its apparent attempt to ensure nuclear deterrence, supplement its conventional forces with nuclear capabilities and secure its influence on the international community. It is regarded that China's nuclear strategy is to deter any nuclear attack on its territory by maintaining a nuclear force structure able to conduct retaliatory nuclear attacks on a limited number of targets such as cities in adversary countries, should China be subject to nuclear attacks. China has explained that it is committed to "no first use" of nuclear weapons under any circumstances, to "unconditional negative security assurance" that it would not use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones unconditionally, and to keeping its nuclear capabilities at the minimum level required for national security.⁸ In recent years, however, doubts have been expressed about the explanation. Furthermore, the United States has been inviting China to participate in the New START Treaty

(Strategic Arms Reduction Treaty), with the upper limit of strategic nuclear forces determined between the United States and Russia, but China has consistently been denying its participation.

China is viewed as having given priority to conventional missile capabilities since the 1990s because of the growing significance of precision-strike capabilities in the global military trend. In addition, China is aiming to modernize, diversify, and expand its nuclear capabilities. It is also investing in and increasing the number of means to deliver nuclear weapons by land, sea, and air. It has been pointed out that China plans to secure up to 700 deliverable nuclear warheads by 2027 and at least 1,000 warheads by 2030.⁹ It is believed that China will continue to place importance on nuclear and missile capabilities in the future.

China possesses ballistic missiles of various types and ranges, including ICBMs, SLBMs, intermediate-range ballistic missiles (IRBMs)/medium-range ballistic missiles (MRBMs), and short-range ballistic missiles (SRBMs). The update of China's ballistic missile forces from a liquid propellant system to a solid propellant system is improving their survivability and readiness. Moreover, it is believed that China is working to increase their performance by such means as extending ranges, improving targeting accuracy, and employing maneuverable reentry vehicles (MaRVs) and multiple independently targetable reentry vehicles (MIRVs).

China's main ICBMs, its strategic nuclear asset, had been the fixed-site liquid-propellant DF-5 missiles. However, China has in recent years deployed the DF-31, which is a mobile-type ICBM with a solid propellant system mounted onto a transporter erector launcher (TEL). China is developing the new DF-41 ICBM, which is viewed

DF-41 ICBMs

[Specifications, performance]

Maximum firing range: 11,200 km

[Description]

New intercontinental-range ballistic missiles showcased for the first time at the military parade commemorating the 70th anniversary of China's founding in October 2019. Viewed as capable

of carrying 10 multiple independently targetable reentry vehicles (MIRVs) and having attack capabilities with high accuracy.



DF-41 ICBM
[Imaginechina/Jiji Press Photo]

⁸ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

⁹ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

to be able to fly up to approximately 11,200 km and carry 10 warheads. It made its first appearance in the military parade to mark the 70th anniversary of the founding of the People's Republic of China in October 2019.

With regard to submarine-launched ballistic missiles (SLBM), it is considered that Jin-class Nuclear-Powered Ballistic Missile Submarines (SSBN) equipped with JL-2 SLBMs with an estimated range of approximately 8,000 km are operational. It is believed that China's strategic nuclear capabilities will improve significantly through nuclear deterrence patrols using the Jin-class SSBNs. Furthermore, it seems that China is also developing the JL-3 SLBM with the extended range of 12,000 to 14,000 km and a new SSBN for carrying the JL-3.

China's missile forces have been put outside the framework of the U.S.-Russia INF Treaty, and China holds numerous amounts of ground-launched missiles with ranges between 500 and 5,500 km that had been subjected to the INF treaty. It is also deemed that China is ahead of the United States in relation to ground-launched ballistic missiles and cruise missiles.¹⁰ As for the IRBMs/MRBMs covering the Indo-Pacific region including Japan, China has the mobile solid-propellant DF-21 and DF-26, which can be transported and operated on TELs. These are viewed as capable of carrying both conventional and nuclear warheads. China possesses ballistic missiles carrying conventional warheads with high targeting accuracy based on the DF-21, including the DF-21D anti-ship ballistic missile (ASBM), called "carrier killer," which carries conventional warheads to attack overwater ships including aircraft carriers. The DF-26, which has a range including Guam and is called "Guam killer," is considered a "second-generation ASBM" developed on the basis of the DF-21D. It was announced in April 2018 that the DF-21D had "formally joined the order of battle." China also possesses the CJ-20 (CJ-10) long-range land-attack cruise missile with a range of at least 1,500 km, as well as the H-6 bomber that is capable of carrying this cruise missile. It is deemed that these missiles complement ballistic missile forces, covering the Indo-Pacific region including Japan. In the military parade to celebrate the 70th anniversary of its founding in October 2019, CJ-100/DF-100, which is said to be a supersonic cruise missile, also made its first public appearance. The deployment of these ASBMs and cruise missiles is expected to strengthen China's "A2/AD"

capabilities. Concerning SRBMs, China has deployed a large number of solid-propellant DF-16, DF-15, and DF-11 missiles facing Taiwan. It is believed that their ranges cover a part of Japan's Southwestern Islands including the Senkaku Islands.

Furthermore, China is believed to be rapidly developing several HGVs that would be launched with ballistic missiles to penetrate missile defenses. Their flight tests have reportedly been conducted since 2014. In the military parade to mark the 70th anniversary of China's founding in October 2019, the DF-17 MRBM viewed as capable of carrying a hypersonic glide vehicle made its first public appearance. The U.S. DoD has pointed out that China put DF-17s operational in 2020.¹¹ In August 2018, China is believed to have tested a hypersonic vehicle featuring the "waverider" design. Furthermore, related developments are attracting attention. For example, there were reports that a test launch of an HGV into low Earth orbit was conducted around the summer of 2021, and that the "Long March" rocket used by China in its space program seemed to have been used for the launch.

JL-2 SLBMs

[Specifications, performance]
Maximum firing range: 8,000 km

[Description]
Submarine-launched ballistic missiles (SLBMs) viewed as strategic nuclear forces of Chinese Navy. It is considered that China is developing JL-3 SLBMs (maximum range 12,000 km to 14,000 km) with extended ranges for further strengthening strategic nuclear forces.



JL-2 SLBMs
[Avalon/Jiji Press Photo]

DF-17 MRBMs

[Specifications, performance]
Maximum firing range: 1,800 km - 2,500 km

[Description]
Medium-range ballistic missiles viewed as having been developed based on DF-16 SRBMs and as being capable of carrying a Hypersonic Glide Vehicle (HGV). Showcased for the first time at the military parade commemorating the 70th anniversary of China's founding in October 2019.

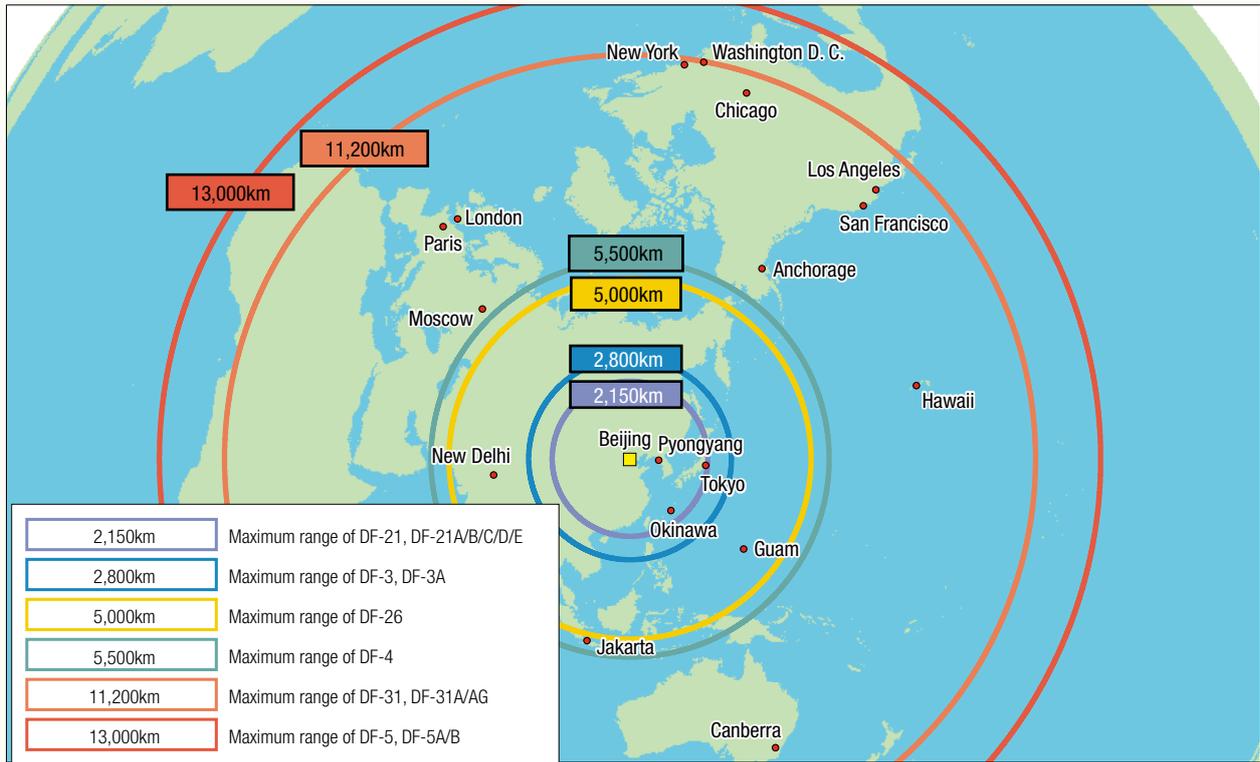


DF-17 medium-range ballistic missile believed to carry a hypersonic glide vehicle
[Avalon/Jiji Press Photo]

¹⁰ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2020).

¹¹ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

Fig. I-3-2-2 Range of Ballistic Missiles from China (Beijing) [image]



Note: The figure above is for illustrative purpose, showing the range of each missile from Beijing.

HGVs have evolved remarkably. It has been pointed out that multiple warheads can be attached to the aforementioned new ICBM, the DF-41, and that China is testing an intercontinental range HGV. Furthermore, it has been pointed out that it is highly likely that the launch vehicle is derived from the DF-41. It will not only be capable of significantly extending the effective range of HGVs compared to the DF-17, but will also be capable of carrying larger, heavier HGVs. The U.S. DoD estimates that the number of warheads on the ground-launched ICBMs capable of threatening the United States is expected to grow to about 200 in the next five years. The DoD has also pointed out that China has commenced building at least three solid-fueled ICBM silo (underground launch facility) fields, which will cumulatively contain hundreds of new ICBM silos in the future.¹² This may be planned to strengthen deterrence against the United States.

These vehicles are said to be more difficult for missiles to intercept because they fly low at very high speeds and are highly maneuverable.

China also seems to be making efforts to develop

missile defense technologies, such as the HQ-19 ballistic missile defense system. It is believed that China has been conducting missile interceptor tests in the mid-course phase since 2010. The most recent test was in February 2021. It has been pointed out that this is an attempt to acquire capabilities to respond to IRBMs and other missiles.¹³ In addition, in May 2019, two S-400 surface-to-air missile systems introduced from Russia were reportedly deployed near Beijing. In October of the same year, Russian President Putin stated that Russia was helping China build a “missile-attack early warning system.” Furthermore, the U.S. DoD has pointed out that China has at least one early warning satellite in orbit as of 2021.¹⁴

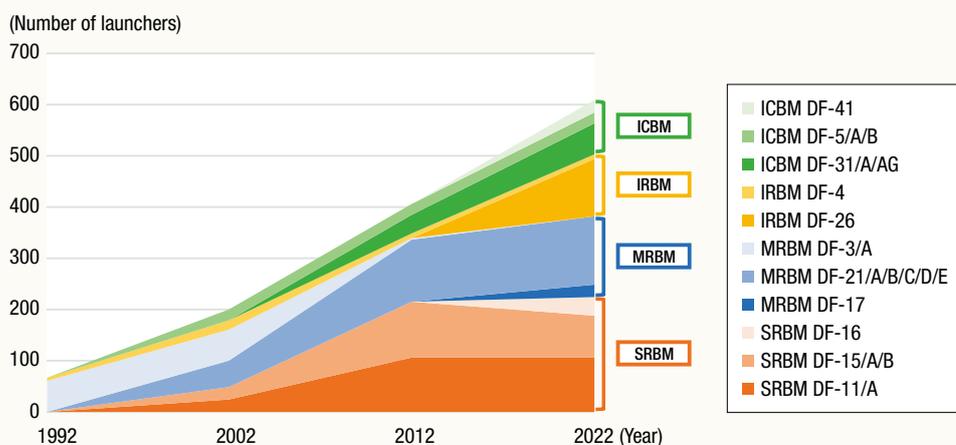
Given that ballistic missile defense technology has the potential to be applied to missiles capable of destroying satellites, attention will focus on future Chinese missile defense trends.

 See Fig. I-3-2-2 (Range of Ballistic Missiles from China (Beijing) [image])
Fig. I-3-2-3 (Number of China’s Ground-Launched Ballistic Missiles Fired in the Past)

12 According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).
13 According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).
14 According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

Fig. I-3-2-3

Number of China's Ground-Launched Ballistic Missiles Fired in the Past



* The numbers of launchers, missiles, and warheads of ballistic missiles possessed by China are not publicized.

* This data classifies the number of launchers possessed by China into ICBM, IRBM, MRBM, and SRBM according to the general standard based on "The Military Balance" of each year.

(3) Ground Forces

China has the third largest ground forces in the world, following India and North Korea, with approximately 970,000 personnel. China has sought to improve the operational capabilities of ground forces pursuing the downsizing, multifunctionality, and modularization of military units. Specifically, it is believed to be improving ground forces' mobility using measures such as shifting from theater defense to trans-theater mobility and working to motorize and mechanize infantry units. It should be noted that while the buildup of the Navy Marine Corps has been completed and continues to focus on expeditionary operations, overall, the reform and modernization of the Navy Marine Corps has been slow. The aforementioned goal of modernizing the military by 2020 was not achieved. On the other hand, some analysis suggests that an additional brigade reached fully mission capable status in 2020 and another four brigades (one of which is an aviation brigade) achieved initial operational capability.¹⁵

China has annually conducted Stride, Firepower, and Sharp Sword maneuver-exercises that cut across multiple regions. They are aiming at verifying and improving the capabilities necessary to deploy army troops to remote areas, such as long-distance maneuvering capabilities of the Army, and logistical support capabilities that include mobilizing militias and public transportation. China has also conducted combined military branch and service exercises under Joint Action since 2014. Furthermore, it has been

reported that force-on-force training has been frequently conducted to improve practical operational capabilities. The U.S. DoD pointed out that throughout 2020, the PLA Army conducted large-scale exercises, and that these exercises were implemented to prepare for escalation of border tensions with India or an unintended contingency with Taiwan.¹⁶ These facts suggest China's attempt to improve its practical joint operational capabilities.

The above described PAP consists of internal security corps, which are organized and established based on administrative divisions such as provinces and autonomous regions, mobile corps, which do not have fixed areas in charge and perform missions across different areas, and the Coast Guard, described later, which is said to safeguard national sovereignty, security, and maritime interests as well as implements law enforcement. The PAP is said to own various equipment such as armored vehicles, rotary-wing aircraft, and heavy machine guns. Furthermore, it is reported that the PAP focuses on maintaining internal security and joint operations with the PLA, and is developing capabilities for readiness, mobility and counter-terrorism operations.¹⁷

 See Fig. I-3-2-4 (Deployment of the People's Liberation Army [image])

(4) Naval Forces

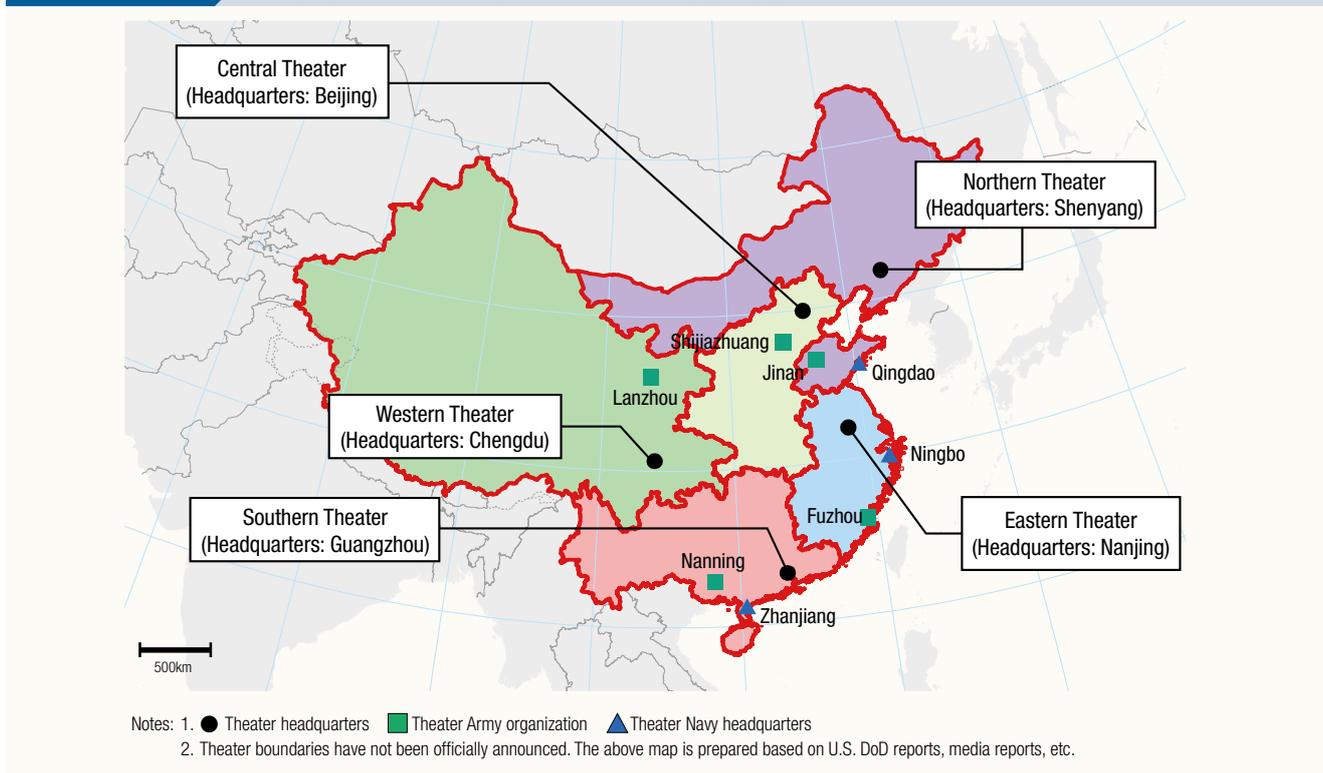
The naval forces consist of three fleets: North Sea Fleet, East Sea Fleet, and South Sea Fleet. China's naval forces,

¹⁵ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

¹⁶ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

¹⁷ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

Fig. I-3-2-4 Deployment of the People's Liberation Army [image]



which own a larger scale of ships exceeding the U.S. Navy and are said to be the largest navy in the world,¹⁸ are rapidly modernizing. The Chinese Navy promotes the mass production of its indigenous Yuan-class submarines with improved quietness, as well as surface combatant ships with improved air defense and anti-ship attack capabilities. In January 2020, the Navy commissioned the first Renhai-class destroyer among its largest destroyers, and the second, third, and fourth destroyers were commissioned in March, April, and November 2021. The Renhai-class destroyer is said to be equipped with a vertical launch system (VLS) with 112 launch cells, almost twice the number of launch cells as the new Luyang III-class destroyer. The VLS is capable of launching long-range land-attack cruise missiles and YJ-18 anti-ship cruise missiles with a supersonic terminal attack capability, as well as ASBMs. It has also been pointed out that the destroyer is being considered as a launch vehicle to defend against ballistic missiles in the mid-course phase,¹⁹ and that this suggests a plan for capability of carrying anti-ship HGVs. The destroyer could be key for the Chinese Navy's long-range missile capabilities in the future. In addition, the Navy is increasing the number of large landing ships and supply ships. Since September 2019, Yushen-

class (Type-075) large landing ships have been launched in sequence, and "Hainan," which is believed to be the first ship, commissioned in April 2021. In December of the same year, it is believed that the "Guangxi," which appears to be the second ship, was commissioned in the Eastern Theater Command. Furthermore, it has been pointed out that Type-076 landing ships may be built following on from the Yushen-class landing ship. Since September 2017, Fuyu-class fast combat support ships (comprehensive supply ships) have been in operation for replenishment for the aircraft carrier group.

With regard to aircraft carriers, China's first aircraft carrier "Liaoning," following its commission in September 2012, reportedly made its first advance to the South China Sea in November 2013 and to the Pacific Ocean in December 2016. In the same month of 2016, the "Liaoning" conducted its first comprehensive live action, including live firing by carrier-based fighters, in the Bohai Sea. It was announced that the "Liaoning" participated in a naval review in the South China Sea and advanced to the Pacific Ocean for force-on-force training including carrier-based fighters from March to April 2018. China's first indigenous aircraft carrier (its second carrier) was launched in April 2017, and

¹⁸ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

¹⁹ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

then it was named “Shandong” and commissioned in Sanya of Hainan Island in December 2019. It is believed that the “Shandong” passed through the Taiwan Strait in December 2020. The “Shandong,” with a ski-jump flight deck, is an improved version of the “Liaoning,” reportedly carrying a greater number of aircraft than the “Liaoning.” China is reportedly building its second indigenous aircraft carrier, which could be equipped with an electromagnetic catapult system to operate fixed-wing early warning aircraft. It has also been pointed out that China has plans to build nuclear-powered aircraft carriers.

China is believed to have been developing and deploying unmanned surface vehicles (USVs) and unmanned underwater vehicles (UUVs) that are available for military purposes. Such equipment, though being relatively cheap, are viewed as representing an asymmetric force to effectively prevent adversaries from winning maritime supremacy, particularly underwater supremacy.

Given these developments concerning the naval forces, China appears to be steadily building up capabilities for conducting operations in more distant waters in addition to near sea defense. It has also been pointed out²⁰ that in the near future, the Chinese Navy will have the capability to conduct long-range precision strikes against land targets from its submarine and surface combatants using land-attack cruise missiles, and is enhancing its anti-submarine warfare (ASW) capabilities to protect aircraft carriers and nuclear-powered ballistic missile submarines. It is necessary to continue to monitor the related trends.

The PAP, one of the China’s armed forces other than the military, has the Coast Guard under its umbrella, one of whose missions is the protection of maritime interests. The Coast Guard consists of three groups: North, East and South Sea Sub-bureaus. Chinese government ships belonging to the Coast Guard have recently been designed to be larger and armed. At the end of December 2021, the China Coast Guard possessed 132 ships²¹ with full displacement of 1,000 tons or more, including two 10,000-ton-class patrol ships, among the world’s largest ones. Some China Coast Guard vessels have been confirmed as armed with 76 mm large guns that may be as powerful as the Navy vessels. The newer ships are significantly larger and more capable than older ships, and are equipped with helicopter facilities, high-capacity water cannons, and guns ranging 30mm to 76mm, so that they are viewed as being able

to withstand long-term operations and engage in distant-water activities.²²

The organizational enhancement of the Coast Guard has also been confirmed. China’s maritime surveillance had been conducted by the China Coast Guard Bureau under control of the State Council’s Ministry of Public Security, as a unified body consisting of the China Marine Surveillance (Haijian) of the State Oceanic Administration under the Ministry of Natural Resources, the China Fisheries Law Enforcement Command (Yuzheng) of the Fisheries Management Bureau under the Ministry of Agriculture, the Maritime Anti-Smuggling Force of the General Administration of Customs, etc. In July 2018, the Coast Guard was transferred to the PAP under unified control and command of the CMC and renamed PAP Coast Guard. After the transfer, former naval officers were reportedly given major Coast Guard posts, indicating enhanced cooperation between the military and Coast Guard. It has been noted that retired naval destroyers and frigates were delivered to the Coast Guard, suggesting that the military has been supporting the Coast Guard in terms of equipment as well as personnel.

At a ceremony to give the PAP a flag in January 2018, Chairman Xi stated that the PAP would be incorporated into the military forces’ joint operations system. It has been pointed out that the military forces and the Coast Guard have conducted joint exercises. The military forces and the PAP including the Coast Guard are believed to be attempting to steadily strengthen their joint operational capabilities through the enhancement of cooperation. Given these trends, progress in cooperation between the Coast Guard and the Navy and between the Coast Guard and military services other than the Navy should be watched closely.

Aircraft carrier “Shandong”

[Specifications, performance]

Full-load displacement: 66,000 tons.

Speed: 30 knots (approximately 56 km/h)

On-board aircraft: 36 J-15 carrier-based fighters

[Description]

China’s first indigenous ski-jump flight deck carrier, an improved version of the Liaoning. Commissioned in Sanya of Hainan Island facing the South China Sea in December 2019.



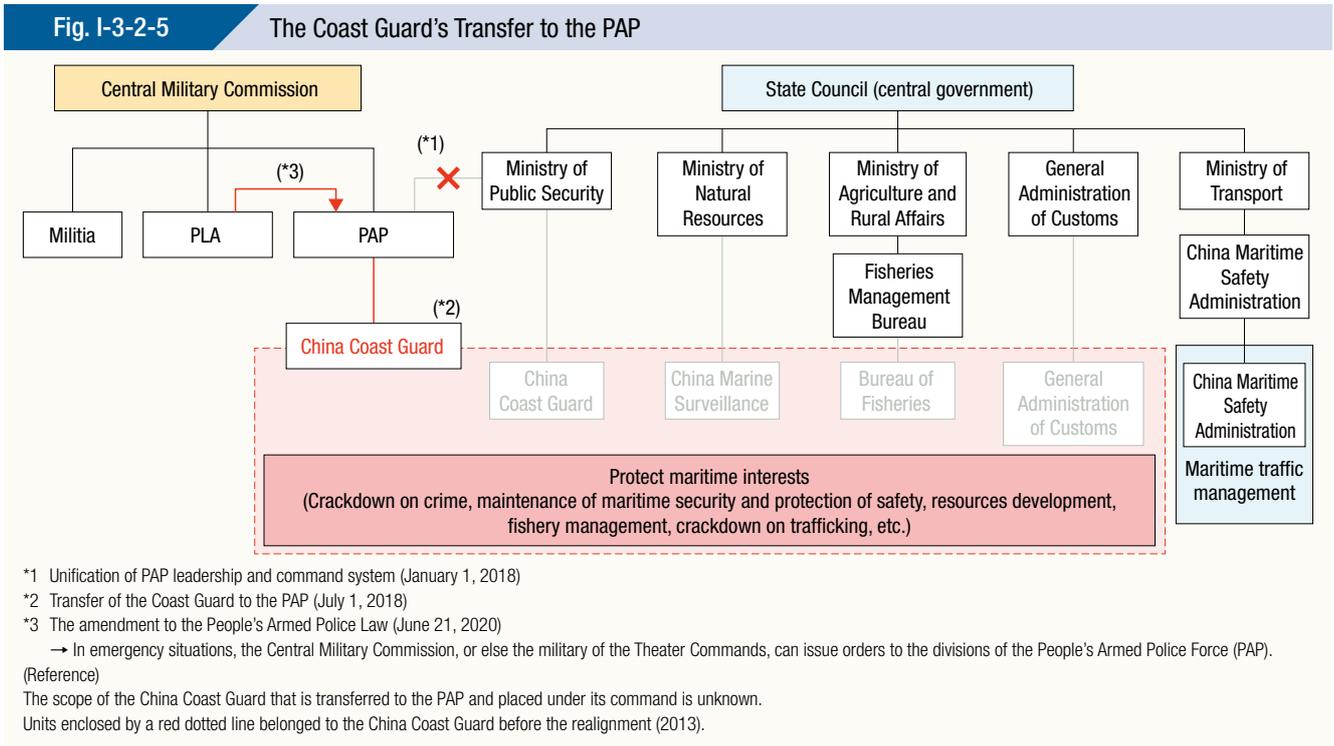
China’s first indigenous aircraft carrier Shandong commissioned in 2019
[Avalon/Jiji Press Photo]

²⁰ According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

²¹ According to “Japan Coast Guard Annual Report 2022,” Japan Coast Guard Defense.

²² According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

Fig. I-3-2-5 The Coast Guard's Transfer to the PAP



Amid such a situation, in June 2020, “Law of the People’s Republic of China in the People’s Armed Police Force (PAP Law)” was revised, and “protection of maritime interests and law enforcement” were added to the duties of the PAP. The revised version also stipulates that the PAP shall be centrally and uniformly guided by the Central Committee and the CMC of the People’s Republic of China. In the revision of this law, the duty of “protection of the maritime interests and law enforcement” was supposed to be stipulated separately by law. However, the Coast Guard Law of the People’s Republic of China (Coast Guard Law), which stipulates the Coast Guard’s responsibilities and authority including the use of weapons, was newly enacted in January 2021 and entered into force in February 2021. A Spokesperson of the Chinese Ministry of Foreign Affairs explains that the establishment of the CCG Law is merely a normal legislative activity of the National People’s Congress and that China’s maritime policy has not changed. However, the Coast Guard Law includes problematic provisions in terms of their inconsistency with international law. Sources of inconsistency include, among others, ambiguity as to geographical areas the Coast Guard Law applies and how the rules governing the use of weapons are implemented.

The Coast Guard Law must not be allowed to infringe on the legitimate interests of the relevant countries including Japan. Furthermore, the raising of tensions in the East China Sea and other sea areas is completely unacceptable. The United States and some neighboring countries have expressed concerns about the law. In order to allay other countries’ concerns regarding China, it is strongly hoped that China will improve transparency through specific and accurate outward-facing explanations in the future.

It is pointed out that, among the militia, whose status is China’s armed force other than the military, the so-called maritime militia is playing the role of the front guard for supporting China’s maritime interests. The maritime militia is said to operate in the South China Sea, etc. and consist of fishermen and residents of isolated islands. In 2009, when Chinese naval and other ships intercepted the Impeccable, a U.S. Navy ocean surveillance ship, maritime militia members were reportedly seen aboard a fishing boat that was trying to remove a sonar from the U.S. ship. In 2019, when Chinese maritime survey ships were operating in Vietnam’s exclusive economic zone, maritime militia ships were reportedly seen along with China Coast Guard vessels.²³ In addition, in March 2021, the Philippine

23 In addition, it is pointed out that while the maritime militia often rents fishing vessels from companies or individual fishermen, China has built a state-owned fishing fleet in the South China Sea for the maritime militia. It is also pointed out that the Hainan provincial government, adjacent to the South China Sea, ordered the building of 84 large militia fishing vessels with reinforced hulls and ammunition storage, which the militia received by the end of 2016, along with extensive subsidies to encourage frequent operations in the Spratly Islands. Since this maritime militia unit recruits military veterans as its members to create a unit on par with a career soldier unit, it is reported that salary is paid separately from its commercial fishing activities.

government announced that approximately 220 maritime militia ships had been confirmed near Whitsun Reef in the Spratly Islands.

Given China's emphasis on the necessity of "fully exerting the overall power of the military, police and militia" on the seas, attention should be paid to these asymmetrical forces, too.

 **See** Fig. I-3-2-5 (The Coast Guard's Transfer to the PAP)
Fig. I-3-2-6 (Buildup of China Coast Guard Vessels)

(5) Air Forces

China's air forces consist mainly of the Navy's air units and the Air Force. As for fourth-generation fighters, China has introduced from Russia the Su-27 and Su-30 and the Su-35 latest fourth-generation fighter. China is also developing its own domestic modern fighters. China has started the mass production of the J-11B fighter, a suspected copy of the Su-27, and the J-16 fighter, a suspected copy of the Su-30, as well as the domestic J-10 fighter. The J-15 fighter aboard the aircraft carrier "Liaoning" is viewed as a copy of the Russian Su-33. China has also reportedly begun to deploy the J-20 fifth-generation fighter and been developing the J-31. It has been pointed out that the J-31 fighter could be the base for developing the replacement for the J-15 carrier-based fighter.

As China is continuing the modernization of its bombers as well, the Air Force has increased the number of H-6 bombers, which are believed to be capable of carrying long-range land-attack cruise missiles with nuclear capability. In an attempt to improve bombers' long-range operation capabilities, the Air Force has reportedly begun to operate H-6N bombers that can take advantage of aerial refueling to fly longer. It is believed to be developing a new long-range stealth bomber called H-20. It is also pointed out that China is developing an air-launched ballistic missile with nuclear capability to be carried by such bombers. Moreover, it has also been pointed out that China is developing a stealth bomber.

China is also making continuous efforts to improve capabilities which are essential for operations of modern air power by introducing the H-6U and IL-78M aerial refueling tankers and the KJ-500 and KJ-2000 early warning and control aircraft. Since July 2016, China has promoted the deployment of the indigenously developed Y-20 large transport aircraft. The Y-20U, an aerial refueling tanker based on this transport aircraft, has also been deployed since June 2021.

China is rapidly developing a variety of domestic



GJ-11 UAV exhibited at the military parade commemorating the 70th anniversary of China's founding (October 2019)
[Avalon/Jiji Press Photo]

unmanned aerial vehicles (UAVs), including high-altitude, long-endurance (HALE) UAVs for reconnaissance and other purposes as well as those capable of carrying weapons such as missiles. Some of these are deployed and actively exported. In fact, it is suggested that the Chinese Air Force has created a UAV unit for attack missions and frequently used UAVs for reconnaissance and other purposes in waters and airspace surrounding China. At the military parade to celebrate the 70th anniversary of China's founding in October 2019, the GJ-11 known as a stealth attack UAV

J-20 fighter

[Specifications, performance]

Maximum speed: 3,063 km/h

[Description]

A fifth-generation stealth fighter jet. The Chinese Ministry of National Defense announced in February 2018 that the J-20 has started to be delivered to operational units.



J-20 fighter
[Imaginechina/Jiji Press Photo]

H-6 bomber

[Specifications, performance]

Maximum speed: 1,015 km/h

Main armament (H-6K): Air-to-surface cruise missiles (maximum firing range 1,500 km)

[Description]

Indigenous bomber. The H-6 can carry cruise missiles (CJ-20) that can be loaded with nuclear warheads.

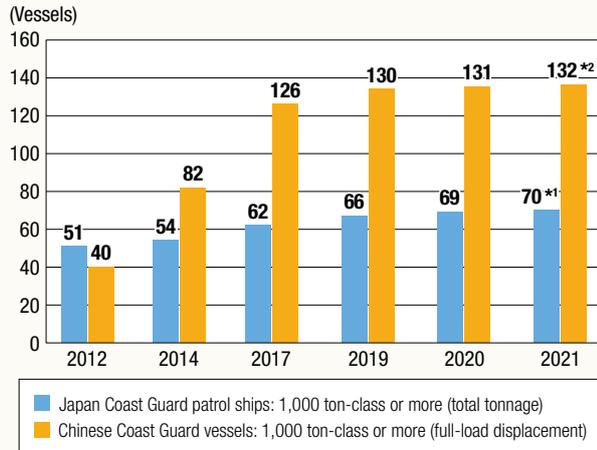


H-6 bomber

and the WZ-8 claimed to be a high-altitude, high-speed reconnaissance UAV were displayed for the first time. The WZ-8 was also on display at the 2021 China International

Fig. I-3-2-6

Buildup of China Coast Guard Vessels



^{*1} Number of ships as of the end of FY2021
^{*2} Number of vessels as of the end of December 2021; Estimation based on publicized information (may be altered in the future)
^{*}According to "Japan Coast Guard Annual Report 2022," Japan Coast Guard

Aviation & Aerospace Exhibition, and the first exhibition flight of several unmanned aircraft was confirmed. It has been noted that China is improving "Swarm" technology to operate a large number of small low-cost UAVs.

Given such modernization of the air forces, it is believed that China is steadily improving not only its defense capabilities for its national airspace but also capabilities for conducting combat operations, and supporting ground and maritime forces in more distant areas.

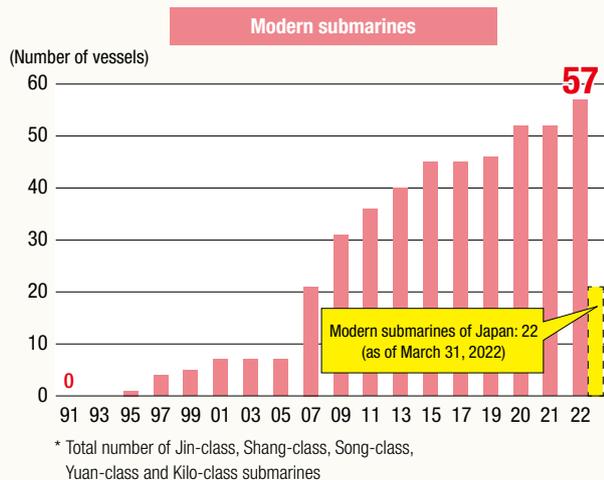
See Fig. I-3-2-7 (Major Chinese Navy and Air Forces)

(6) Space, Cyber, and Electromagnetic Spectrum Capabilities

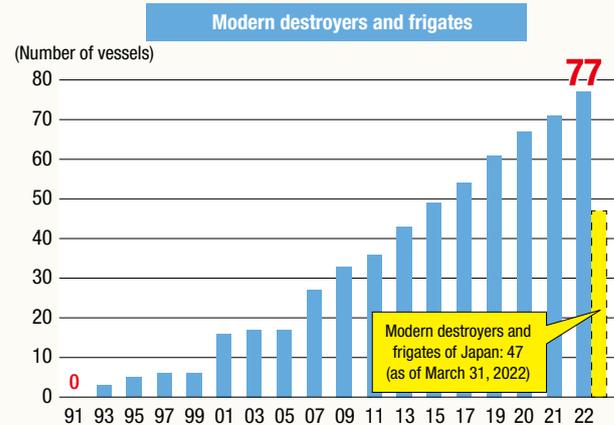
Information gathering, and command and communication in the military sector have increasingly relied on satellites and computer networks. As such, China stated that "outer space and cyberspace have become new commanding heights (capture point) in strategic competition among all

Fig. I-3-2-7

Major Chinese Navy and Air Forces



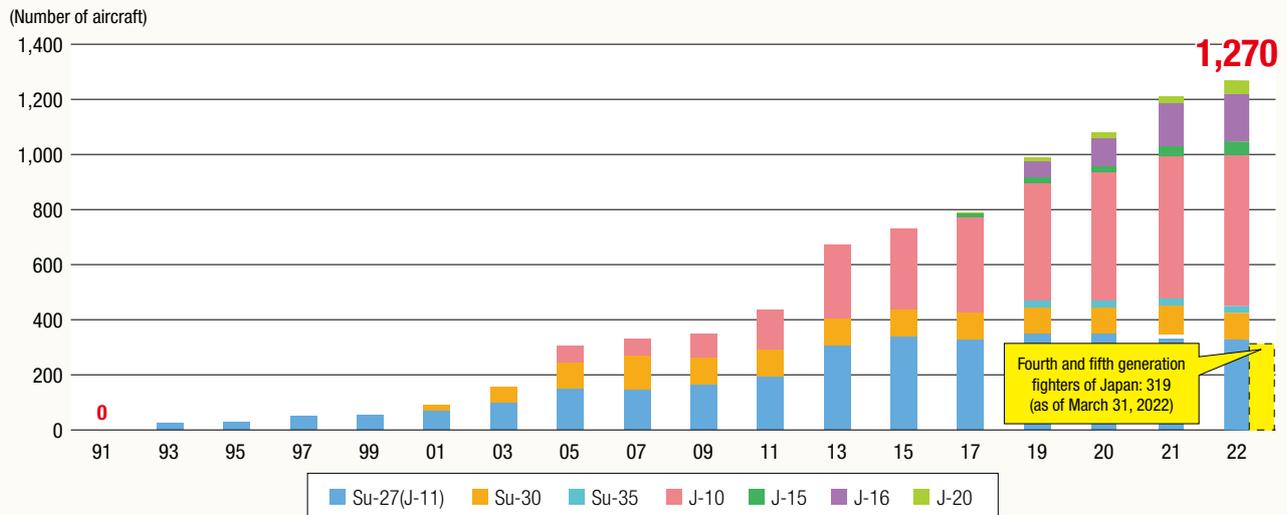
^{*} Total number of Jin-class, Shang-class, Song-class, Yuan-class and Kilo-class submarines



^{*1} Total number of Renhai-class, Luhai-class, Luhai-class, Sovremenny-class, Luyang-class and Luzhou-class destroyers, and Jiangwei-class and Jiangkai-class frigates

^{*2} Additionally, China also has 72 Jiangdao-class corvettes (2022).

Fourth and fifth generation fighters



Legend: Su-27(J-11), Su-30, Su-35, J-10, J-15, J-16, J-20

parties,” indicating that it has recognized the importance of taking on information mastery in wartime when it must protect its own information systems and networks while neutralizing those of its adversaries. In fact, the PLASSF established at the end of 2015 apparently takes charge of outer space, cyberspace, and electronic warfare missions for intelligence support for all military forces.

In its white paper titled “China’s Space Activities” and released in January 2022, China does not rule out its use of outer space for military purposes. Given that administrative organizations and state-owned enterprises involved in the use of outer space in China are pointed out as having close cooperative ties with the military, it is considered that China is planning to improve its capabilities for military operations in outer space.²⁴ China is said to have developed its space program in the shortest time in the world. Specifically, China has rapidly increased the number of satellites available for military purposes in recent years. For example, the “BeiDou” global satellite positioning system, which is called a Chinese-version GPS and pointed out as available for ballistic missiles and other guided weapons systems, started its global operation service in late 2018, and it is deemed that the launch of all satellites constituting the BeiDou system was completed in June 2020. Moreover, China is thought to be developing weapons including anti-satellite weapons using missiles and laser equipment, as well as killer satellites, in order to restrict and interfere with the use of space-based assets by adversaries in wartime.²⁵

As for the cyber domain, China sees cybersecurity as a serious national security threat it faces and vows that China’s armed forces will build cyber defense capabilities, reinforce national cyber border defense, immediately find and block crackers, secure information network security, and unshakably protect national cyber sovereignty, information security, and social stability.²⁶ It has been noted that current major military exercises always contain cyber operations covering both attacks on and defense of command systems. Cyber attacks on enemy networks are likely to bolster China’s “A2/AD” capabilities. The militia as a part of China’s armed forces reportedly includes “cyber militias” with excellent cyber domain capabilities.

It has also been pointed out that the Chinese military routinely conducts various force-on-force exercises in an

electronic warfare environment. In addition, the presence of aircraft with electronic warfare capabilities has been noted. Y-8 electronic warfare aircraft, which frequently fly near Japan, are pointed out along with J-15 carrier-based fighters, J-16 fighters and H-6 bombers that appear to be equipped with electronic warfare pod systems giving them electronic warfare capabilities.

(7) China’s “Intelligentization” of its Military Forces

The “intelligentized warfare” advocated by China is described as “integrated warfare waged in land, sea, air, space, electromagnetic, cyber, and cognitive domains using intelligent weaponry and equipment and their associated operational methods, underpinned by the IoT information system”. The “cognitive domain” may become important in future aspects of warfare. The Taiwan National Defense Report 2021 released in November 2021 also expresses concern about “cognitive warfare,” which attempts to create social disorder by manipulating and disrupting the public’s mentality through the deployment of “Three Warfares” (psychological warfare, public opinion warfare, and legal warfare) and the dissemination of disinformation via social media and other means. It is believed that warfare in the “cognitive domain” is already emerging and in progress.

In addition, as aspects of “intelligentized warfare,” the U.S. DoD, citing the views of Chinese military strategists, has pointed out that new technologies will increase the speed and tempo of future warfare, and that operationalization of AI will be necessary to improve the speed and quality of information processing by reducing battlefield uncertainty and to provide decision making advantage over potential adversaries. The PLA is also exploring next-generation operational concepts for intelligentized warfare, including attrition warfare by intelligent swarms, AI-based space confrontation, and cognitive control operations. Furthermore, it has been pointed out that the PLA considers unmanned systems to be critical intelligentized technologies, and is pursuing autonomy for unmanned land, sea, and air assets to enable manned and unmanned hybrid formations, swarm attacks, optimized logistic support, and disaggregated intelligence, surveillance, and reconnaissance (ISR) operations.²⁷

²⁴ According to “The Worldwide Threat Assessment,” the U.S. Director of National Intelligence (2019).

²⁵ According to “The Worldwide Threat Assessment,” the U.S. Director of National Intelligence (2019).

²⁶ According to the defense white paper “China’s National Defense in the New Era” (July 2019).

²⁷ According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

(8) Efforts to Develop Joint Operational Capabilities

In recent years, initiatives have been under way to improve joint operational capabilities in areas from the front line to logistics. The CMC Joint Operations Command Center is believed to have been established under the initiatives for the CCP to carry out decision making at the highest strategic level. The five new theaters established in February 2016 are seen as representing permanent joint operation headquarters. Given that the Navy's Vice-Admiral Yuan Yubai and the Air Force's Commander Yi Xiaoguang were named theater commanders in January and October 2017, respectively for the first time from branches other than the Army, attention is being paid to the progress towards joint operations in the area of human resources. In recent years, China has implemented tri-service joint exercises giving priority to practicality and other drills to improve its joint operational capabilities. These drills are apparently designed to secure the effectiveness of the abovementioned organizational reforms and other initiatives to improve joint operational capabilities. In response to the novel coronavirus disease, which emerged in China from late 2019, China has reportedly implemented not only joint military operations but also the mobilization of civil resources. The Joint Logistics Support Force specialized in logistics has played a core military role in the response while receiving support from each theater and service. In addition, militias and national-defense-mobilized personnel have also reportedly participated in the response, which has attracted attention as a case indicating comprehensive joint logistic support capabilities.

At the 19th CCP National Congress in October 2017, General Secretary Xi reiterated enhancing joint operational capabilities and the pursuit of practical capabilities of a military that "can fight and win a war." More recently, at a CMC meeting on military training in November 2020, General Secretary Xi also stated that the strengthening and developing of joint training and the enhancement of joint operational capabilities need to be accelerated. Given these remarks, the abovementioned moves towards joint operations are expected to progress further.

6 Maritime and Airspace Activities

(1) General Situation

Recently, China is believed to be aiming to build up capabilities for operations in more distant waters and airspace, including those to project power to waters including the so-called second island chain, beyond

the first island chain. In such efforts, China has rapidly expanded and intensified its activities in the maritime and aerial domains using its naval and air powers. In waters and airspace surrounding Japan, particularly, Chinese naval vessels, and naval and air force aircraft suspected as conducting training and information gathering activities have been frequently observed, along with Chinese naval ships heading for the Pacific and Indian Ocean and numerous China Coast Guard vessels and aircraft operating under the name of protecting maritime interests. Their activities include China Coast Guard vessels' intermittent intrusions into Japan's territorial waters, Chinese aircraft's intrusions into Japan's airspace, and dangerous acts that could cause unintended consequences, such as the direction of fire-control radar at Japanese Self-Defense Forces (SDF) ships and aircraft, Chinese military fighter jets' abnormally close approach to Japanese SDF and U.S. military aircraft, and the establishment of the "East China Sea ADIZ" and other activities that could infringe upon the freedom of overflight. These activities have become a matter of grave concern and are very deplorable. In the South China Sea, China is moving forward with militarization, and expanding and intensifying its activities in the maritime and aerial domains, attempting to create a fait accompli for unilaterally changing the status quo by coercion. It is strongly hoped that China will act on the basis of the principle of the rule of law and play active roles in the region and the international community in a more cooperative manner.

(2) Military Activities in Japan's Surrounding Waters and Airspace

The Chinese Navy and Air Force have in recent years expanded and intensified their activities in the surrounding sea areas and airspace of Japan, including the area surrounding the Senkaku Islands. These activities include those allegedly based on China's unilateral claim on the Senkaku Islands, and cases involving the one-sided escalation of activities, creating a situation of great concern to Japan. The Air Self-Defense Force (ASDF) has continued to make frequent scrambles against Chinese aircraft, as indicated by an all-time high of 851 scrambles in FY2016. China has also continued naval ships' passage through waters near Japan for navigation to distant waters such as the Indian Ocean, as well as activities viewed as training of maritime and air forces making forays to the Pacific and the Sea of Japan. Recently, in October 2021, China and Russia conducted joint exercises in the Sea of

Japan with the participation of naval vessels, including the aforementioned Renhai-class destroyer, the largest destroyer in the PLA Navy. Furthermore, continuing on from this, a total of 10 naval vessels from both countries conducted military exercises while navigating around Japan (Sea of Japan - Tsugaru Strait – east of Inubosaki - Izu Islands - Osumi Strait - south of the Danjo Islands), which is believed to have been intended as a show of force against Japan. Moreover, in November 2021, the third long-distance joint flight with Russia was conducted, with bombers passing through Russian airspace directly to the Sea of Japan and then flying to the East China Sea and the Pacific Ocean. In May 2022, the fourth long-distance joint flight with Russia in four consecutive years was conducted, flying from the East China Sea to the Sea of Japan and the Pacific Ocean. Although China can be suspected of intending to “regularize” these activities, there is a view that China is attempting to take advantage of the “regularization” to alleviate concerns over these activities. At the same time, it appears that China continues to improve the complexity of its activities. Given that Chinese efforts are also seen to improve practical joint operational capabilities, Chinese military activities in Japan’s surrounding waters and airspace should be closely watched with grave attention.

a. Activities in the East China Sea (including the Areas around the Senkaku Islands)

Chinese naval vessels have been conducting operations in the East China Sea continuously and actively. Stating its own position regarding Japan’s Senkaku Islands, China claims that patrols by Chinese naval vessels in the sea areas under its jurisdiction are completely justifiable and lawful. Chinese naval vessels have been continuously operating in the areas near Japan’s Senkaku Islands. In June 2016, a Jiangkai I-class frigate became the first ever Chinese Navy combatant vessel to enter Japan’s contiguous zone around the Senkaku Islands. Furthermore, in January 2018, a Shang-class submerged submarine and a Jiangkai II-class frigate passed into the contiguous zone around the Senkaku Islands on the same day. This was the first time a Chinese submarine was identified and announced as conducting submerged transit through the contiguous waters off the Senkaku Islands. In June 2020 and September 2021, submerged transit of a submarine presumed to belong to China was confirmed in the contiguous zone surrounding Amami Oshima Island. In recent years, Chinese Navy intelligence gathering vessels (AGIs) have also been found conducting activities in multiple cases. A Chinese

Navy Dongdiao-class AGI repeatedly navigated back and forth outside of the contiguous zone south of the Senkaku Islands in November 2015. In June 2016, an AGI of the same type sailed in Japan’s territorial waters near Kuchinoerabujima Island and Yakushima Island, and then passed Japan’s contiguous zone north of Kitadaitojima Island. Subsequently, the vessel repeatedly conducted east-west passages outside the contiguous zone south of the Senkaku Islands. Furthermore, in November 2021 and April 2022, a PLA Navy Shupang-class survey ship sailed through Japan’s territorial waters near Kuchinoerabujima Island and Yakushima Island.

China’s air forces are also actively conducting activities in the East China Sea on a routine basis. Their activities are thought to include warning and surveillance, combat air patrols (CAPs), and training. Chinese military aircraft have recently become more active in airspace closer to Japan’s Southwestern Islands. Their activities have possibly been intended to operate the “East China Sea ADIZ.” In April 2018, an alleged BZK-005 unmanned reconnaissance vehicle was identified flying over the East China Sea. In August 2021, an alleged TB-001 unmanned reconnaissance/attack vehicle and BZK-005 unmanned reconnaissance vehicle along with a Y-9 intelligence gathering aircraft and Y-9 patrol aircraft, were confirmed flying from the East China Sea to the Pacific Ocean via the waters between the main island of Okinawa and Miyakojima Island on consecutive days. Furthermore, Chinese military aircraft have been confirmed as operating in airspace close to the Senkaku Islands in recent years.

b. Advancements into the Pacific Ocean

Chinese Navy combatant vessels continue to transit the waters near Japan to advance into the Pacific Ocean and return to base with high frequency. The advancement routes are multiplying. Chinese naval vessels have been confirmed as transiting the sea area between the main island of Okinawa and Miyakojima Island, and have been found passing through the Osumi Strait, the sea area between Yonagunijima Island and Nakanokamishima Island near Iriomotejima Island, the sea area between Amamioshima Island and Yokoatejima Island, the Tsugaru Strait, and the Soya Strait. Through these activities, China has apparently attempted to “regularize” naval ships’ advancements into the Pacific Ocean through waters near Japan and improve its capabilities for accessing the open ocean and conducting operations there. In December 2016, the aircraft carrier “Liaoning” navigated the East China Sea together with other vessels and passed the sea area between the main

island of Okinawa and Miyakojima Island to advance to the Pacific for the first time. In April 2018, the Chinese Ministry of National Defense announced that the aircraft carrier “Liaoning” and multiple other vessels passed through the Bashi Channel to advance to the Pacific and conducted force-on-force exercises that included carrier-based fighters. At that time, the Japanese Maritime Self-Defense Force (MSDF), conducting warning and surveillance, confirmed for the first time the carrier used for what were presumed to be carrier-based fighters for take-off and landing in the Pacific Ocean. Moreover, the aircraft carrier “Liaoning” advanced to the Pacific Ocean through the sea area between the main island of Okinawa and Miyakojima Island in June 2019, together with vessels such as a Fuyu-class fast combat support ship for supplying the aircraft carrier group. Furthermore, in April 2020, a fleet, including the aircraft carrier “Liaoning,” passed through the waters of the main island of Okinawa and Miyakojima Island to enter the Pacific Ocean, and deployed through the Bashi Strait to the South China Sea. Later, the fleet again passed through the Bashi Strait and entered the Pacific Ocean. Within the same month it passed through the waters of the main island of Okinawa and Miyakojima Island to the East China Sea. In addition, in April and December 2021, and May 2022, a fleet including the aircraft carrier “Liaoning” and the Renhai-class destroyer were seen passing through the waters of the main island of Okinawa and Miyakojima Island southward to the Pacific Ocean, and then within the same month navigated northward through the same sea area to the East China Sea. Carrier-based fighters from the fleet, which included the aircraft carrier “Liaoning” and passed through the waters of the main island of Okinawa and Miyakojima Island southward to the Pacific Ocean, were also confirmed to have taken off and landed over the Pacific Ocean during the fleet’s April 2020, April and December 2021, and May 2022 navigations. In May 2022, the PLA Eastern Theater Command announced that it had organized naval, air, and conventional missile forces to conduct practical drills in the sea and airspace east and southwest of Taiwan and verify the integrated operational capabilities of multiple military branches. In addition, during the May 2022 navigation, carrier-based fighters were confirmed to have taken off and landed in sea areas closer to Japan than ever confirmed before. The activities, such as the nighttime landing and departure of aircraft first confirmed in December 2021, are worthy of



H-6K bomber (China)

attention as indicating the enhancement of the capabilities of China’s naval forces, including the aircraft carrier, and the improvement of its capabilities to project power to more distant areas.

Regarding air forces, the advancement of a PLAN Y-8 early warning aircraft into the Pacific Ocean, passing the waters between the main island of Okinawa and Miyakojima Island, was confirmed for the first time in July 2013. The advancement of Air Force aircraft into the Pacific was also confirmed in 2015. Since 2017, advances into the Pacific Ocean via this airspace have become more active. The types of aircraft passing through the airspace have also diversified year by year. H-6K bombers and Su-30 fighters were confirmed by 2016 and the Y-8 EW aircraft in July 2017. At least one bomber was confirmed as carrying objects in the form of missiles. The U.S. DoD has pointed out that such Chinese bomber flights indicated the Chinese forces’ training targeting the United States and its allies.²⁸ Flight patterns of Chinese military aircraft have also been changing. Flights from the East China Sea to the Pacific Ocean, passing the waters between the main island of Okinawa and Miyakojima Island, and from the direction of the Bashi Channel to the Pacific Ocean, both with the return trips on the same shuttle routes, have been repeatedly made. Since November 2016, H-6K bombers and other aircraft were confirmed as flying around Taiwan. In August 2017, H-6K bombers were confirmed as flying to waters off the Kii Peninsula after advancing to the Pacific Ocean via waters between the main island of Okinawa and Miyakojima Island for the first time. Through frequent long-distance flights of bombers and other aircraft, including advancements to the Pacific, and their advanced

28 According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2018).

flight paths and composition, China is thought to be demonstrating its presence around areas including those surrounding Japan, and planning further enhancements to more practical operational capabilities.

Additionally, activities considered planned to improve sea and air joint operational capabilities in more distant areas, such as what seemed to be air-to-ship attack drills including advancements to the Pacific Ocean, have been seen in recent years. In April 2019 and February 2020, the PLA Eastern Theater Command announced that joint training was conducted in waters east of Taiwan. Furthermore, in August and September 2021, the PLA Eastern Theater Command announced that joint training was conducted in the sea and airspace southwest and southeast of Taiwan. China is expected to further expand and intensify naval and air activities in the Pacific Ocean.

c. Activities in the Sea of Japan

While the Chinese Navy has been active in the Sea of Japan during training and on other occasions for some time, its Air Force activities in the area have also intensified of late. “Force-on-force exercises” in the Sea of Japan by Chinese Navy ships were announced for the first time in August 2016. Three aircraft apparently participated in the exercises, including two H-6 bombers that passed through the Tsushima Strait into the Sea of Japan for the first time.

In December 2017, Chinese Air Force aircraft (H-6K bombers) passed through the Tsushima Strait and advanced to the Sea of Japan. Then, Chinese fighter aircraft (Su-30 fighters) were confirmed as advancing to the Sea of Japan for the first time. In February 2018, it was confirmed for the first time that the Y-9 intelligence gathering aircraft entered the Sea of Japan via the Western Channel of Tsushima Strait (the strait between Tsushima in Nagasaki Prefecture and the Korean Peninsula). As for naval forces, in March 2021, the Renhai-class destroyer was confirmed for the first time to have sailed through the Tsushima Strait into the Sea of Japan.

Since 2018, China’s sea and air forces have further intensified activities in the Sea of Japan involving passages through the Tsushima Strait. It is considered that the PLA will continue to expand and intensify its activities in the Sea of Japan.

(3) Activities of Chinese Ships Including Coast Guard Vessels, and Aircraft around the Senkaku Islands, etc.

China Coast Guard vessels have been seen almost every day in the contiguous zone of the Senkaku Islands, Japan’s inherent territory, and repeatedly intruded into Japan’s

territorial waters. Since the activities of China Coast Guard vessels based on China’s own assertion conducted in Japan’s territorial waters around the Senkaku Islands are violating international law in the first place, Japan has been strongly protesting against these activities and requested them to leave many times. Despite Japan’s strong protests, however, Chinese Coast Guard vessels continued to intrude into Japan’s territorial waters in FY2021. Almost every month in 2021, China Coast Guard vessels entered Japan’s territorial waters and attempted to approach Japanese fishing boats which were navigating in the area. China Coast Guard vessels entered Japan’s territorial waters around the Senkaku Islands and stayed there for more than 57 hours, the longest period ever, in October 2020.

Providing the background, in December 2008, China Maritime Surveillance vessels intruded into Japan’s territorial waters for the first time and hovered and drifted, running counter to international law. Later, China Maritime Surveillance and China Fisheries Law Enforcement Command vessels gradually intensified their activities in Japan’s territorial waters. Such activities have greatly intensified since September 2012, when the Japanese Government acquired the ownership of three of the Senkaku Islands (Uotsurishima Island, Kitakojima Island, and Minamikojima Island). The number of Chinese government ships intruding into Japan’s territorial waters in a day had been limited to two or three until August 2016. Later, however, the number has reached four frequently.

China is seen to be steadily strengthening an operational posture intended to use Coast Guard vessels to intrude into Japan’s territorial waters. Specifically, vessels sent to waters near the Senkaku Islands have grown larger in size. At least one of the vessels intruding into Japan’s territorial waters has been a 3,000-ton or larger vessel since August 2014. Since February 2015, three 3,000-ton or larger vessels have been confirmed as entering Japan’s territorial waters simultaneously. Since December of the same year, Chinese ships armed with what appear to be cannons have repeatedly intruded into Japan’s territorial waters.

Cases indicating the improvement of China Coast Guard vessels’ operational capabilities have been also confirmed. From February to July 2021, China Coast Guard vessels were seen in the contiguous zone of the Senkaku Islands for a record 157 consecutive days. In that year, China Coast Guard vessels were seen in the contiguous zone of the Senkaku Islands for 332 days. The total number of China Coast Guard vessels seen in the zone was 1,222. Both numbers were the highest since 2020.

Additionally, cases indicating China's capabilities to send numerous China Coast Guard vessels and other ships to waters around the Senkaku Islands simultaneously have also been identified. In early August 2016, approximately 200 to 300 Chinese fishing boats advanced to the contiguous zone of the Senkaku Islands. At that time, as many as up to 15 China Coast Guard vessels and other ships were confirmed in the contiguous zone simultaneously. Over five days, a large number of China Coast Guard vessels, other ships, and fishing boats repeatedly intruded into Japan's territorial waters.

In December 2012, a fixed-wing aircraft of the State Oceanic Administration was identified as the first Chinese aircraft to intrude into Japan's airspace around the Senkaku Islands. Until March 2014, aircraft of the State Oceanic Administration were frequently confirmed as approaching the airspace. In May 2017, it was confirmed that an object that appeared to be a small drone was flying above a China Coast Guard vessel intruding into Japan's territorial waters around the Senkaku Islands. This flight also constitutes an invasion of Japan's territorial airspace.

China has thus relentlessly continued attempts to unilaterally change the status quo by coercion in the sea area around the Senkaku Islands, leading to a matter of grave concern. Japan cannot accept China's actions to escalate the situation.

Among waters other than those around the Senkaku Islands, China Coast Guard vessels were confirmed as passing through Japan's territorial waters around Tsushima Island (Nagasaki Prefecture), Okinoshima Island (Fukuoka Prefecture) and the Tsugaru Strait in July 2017. The same vessels were also confirmed to have sailed in Japan's territorial waters from Sata Cape to the Kusagaki Islands (both in Kagoshima Prefecture) in August that year. In July 2019, a China Coast Guard vessel was seen sailing in Japan's territorial waters around Tappisaki and Omasaki (both in Aomori Prefecture).

See Fig. I-3-2-8 (PLA's Recent Activities in the Surrounding Sea Area and Airspace of Japan [image])
 Fig. I-3-2-9 (Number of Announcements of Chinese Combatant Ships' Activities around the Southwestern Islands and the Soya and Tsugaru Straits)

Fig. I-3-2-8 PLA's Recent Activities in the Surrounding Sea Area and Airspace of Japan [image]

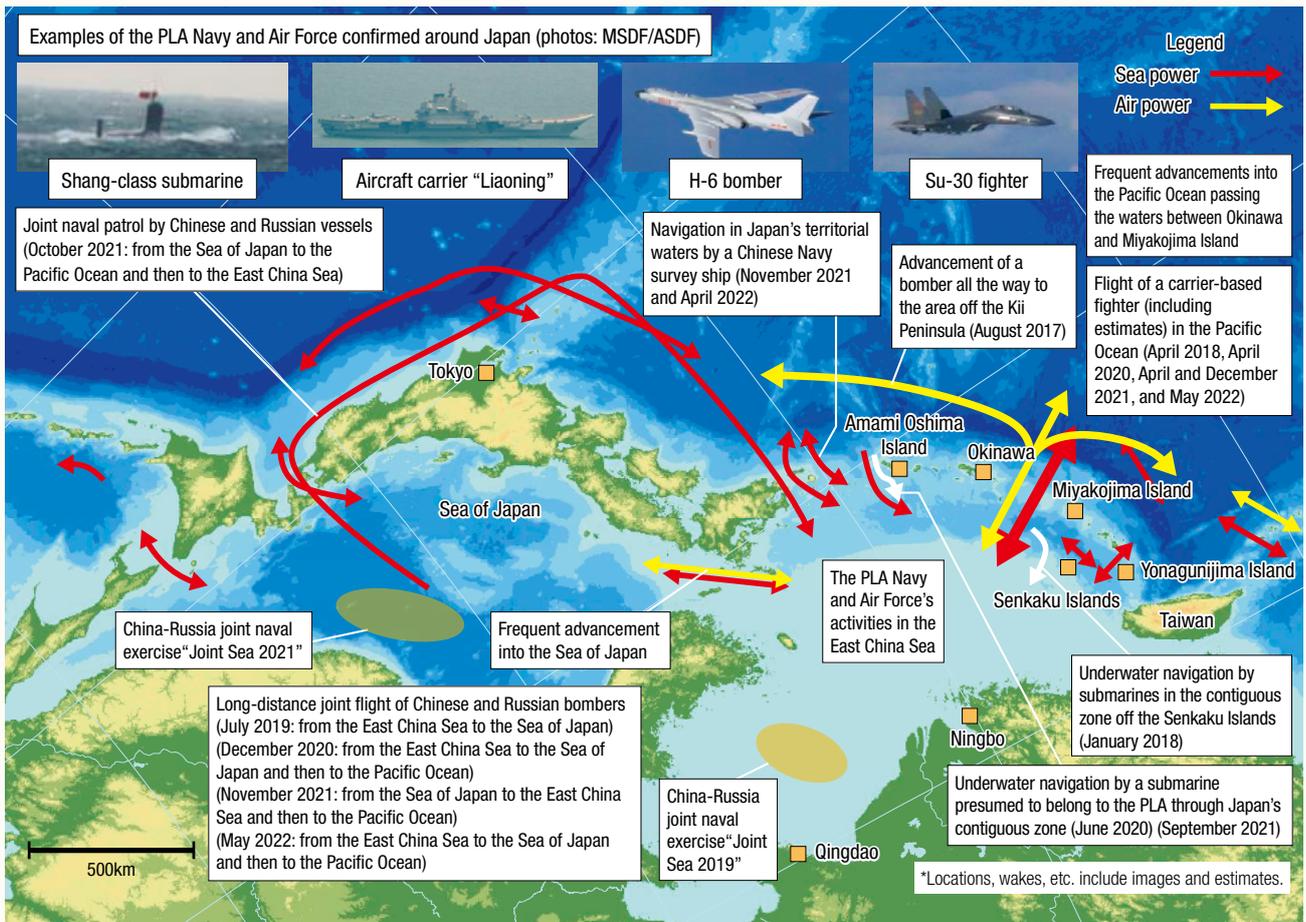


Fig. I-3-2-9 Number of Announcements of Chinese Combatant Ships' Activities around the Southwestern Islands and the Soya and Tsugaru Straits

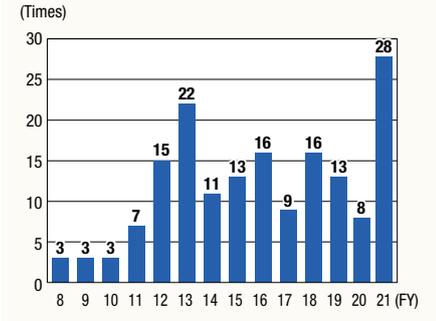


Fig. I-3-2-10 Number of Announcements of Chinese Military Aircraft's Passage between the Main Island of Okinawa and Miyakojima Island

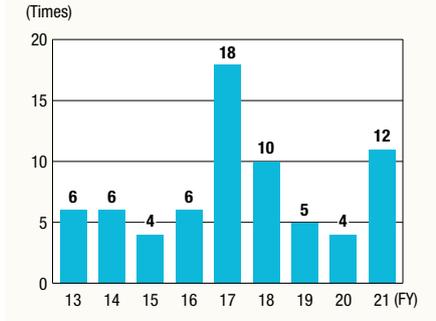


Fig. I-3-2-11 Number of Announcements of Chinese Combatant Ships' Passage through the Tsushima Strait

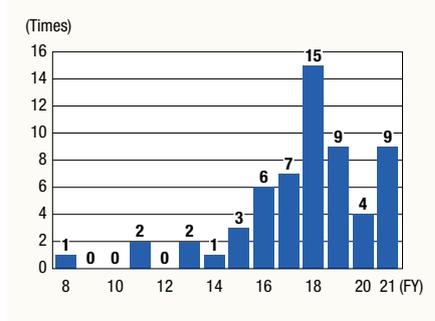


Fig. I-3-2-12 Number of Announcements of Chinese Military Aircraft's Passage through the Tsushima Strait

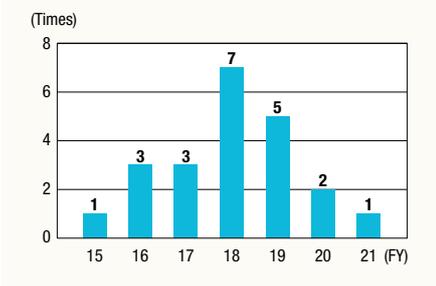


Fig. I-3-2-13 Changes in the Number of Scrambles against Chinese Aircraft

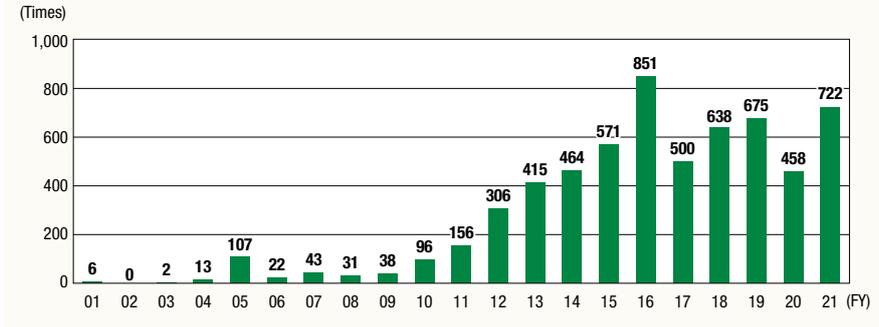
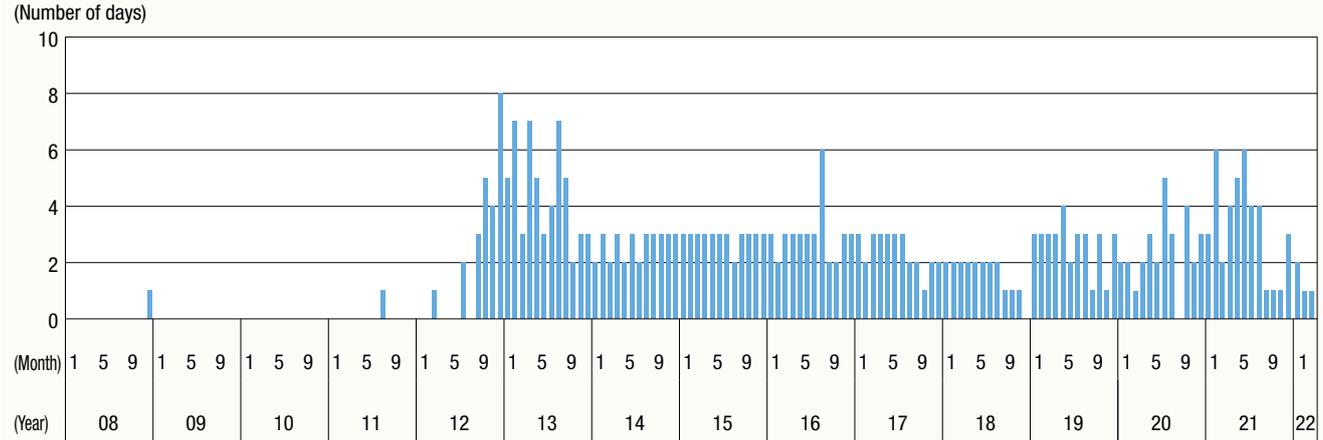


Fig. I-3-2-14 Activities by China Coast Guard Vessels, etc., around the Senkaku Islands



Identification in the contiguous zone

Year	Number of days (days)	Total number of identified vessels (vessels)
2012	79	407
2013	232	819
2014	243	729
2015	240	709
2016	211	752
2017	171	696
2018	158	607
2019	282	1,097
2020	333	1,161
2021	332	1,222
2022	83	282

* The figure for 2012 is that from September to December, and the figure for 2022 is as of the end of March.

Fig. I-3-2-10 (Number of Announcements of Chinese Military Aircraft's Passage between the Main Island of Okinawa and Miyakojima Island)

Fig. I-3-2-11 (Number of Announcements of Chinese Combatant Ships' Passage through the Tsushima Strait)

Fig. I-3-2-12 (Number of Announcements of Chinese Military Aircraft's Passage through the Tsushima Strait)

Fig. I-3-2-13 (Changes in the Number of Scrambles against Chinese Aircraft)

Fig. I-3-2-14 (Activities by China Coast Guard Vessels, etc., around the Senkaku Islands)

(4) Trends of Activities in the South China Sea

China has also been intensifying its activities based on assertions, which are conflicting with existing laws and orders of the seas, in the South China Sea, including waters around the Spratly Islands and the Paracel Islands, over which territorial disputes exist with neighbors, including some member states of the Association of Southeast Asian Nations (ASEAN).

Since 2014, on seven features of the Spratly Islands (Fiery Cross Reef, Mischief Reef, Subi Reef, Cuarteron Reef, Gaven Reefs, Hughes Reef, and Johnson South Reef), China pressed ahead with large-scale and rapid land reclamation. The Philippines-China arbitration award issued in July 2016 denied the “historic rights” as the basis of the “nine-dash line” claimed by China, and determined the illegality of China’s activities such as land reclamation. However, China has made it clear that it would not comply with the award and is currently continuing military activities while promoting the development of military facilities, such as batteries, and various kinds of infrastructure that can be used for military purposes, including runways, ports, hangars, and radar facilities, to militarize these features.

On Fiery Cross, Subi and Mischief Reefs, called the Big Three of the Spratly Islands, China has developed batteries for anti-aircraft guns, missile shelters, underground storage facilities pointed out to be munitions storage, large ports capable of accommodating combatant ships and runways available for takeoff and landing of fighters and bombers.

On Fiery Cross Reef in April 2016, a Navy patrol aircraft flying over the South China Sea landed for a nominal purpose of evacuating emergency patients. On Subi and Mischief Reefs in July of the same year, China forced aircraft test flights on runways available for the takeoff and landing of large aircraft. Reportedly, there was confirmation of a Y-7 transport aircraft on Mischief Reef in January 2018, a Y-8 special mission aircraft on Subi Reef in April that year, a Y-20 transport aircraft on Fiery Cross Reef in December 2020, and a KJ-500 early warning aircraft on Fiery Cross Reef in June 2021. Additionally, in April 2018,

it was reported that anti-ship cruise missiles and surface-to-air missiles were deployed on Fiery Cross, Subi and Mischief Reefs for military training and that radar jamming systems were deployed on Mischief Reef. Furthermore, it was reported in May 2020 that China possibly deployed aircraft including Y-8 patrol and Y-9 early warning aircraft and other aircraft to the Fiery Cross Reef in rotation.

On the other four features, it is pointed out that the construction of facilities, such as harbors, helipads, and radars, has made progress and that what appears to be large anti-aircraft guns and close in weapon systems (CIWS) may have already been deployed. If these features are used for full-scale military purposes, it could significantly change the security environment in the Indo-Pacific region.

China carried out the militarization of the Paracel Islands before that of the Spratly Islands. China has reportedly extended the runway to nearly 3,000 m on Woody Island since 2013. In October 2015, October 2017, and June 2019, China was reported to have deployed J-11, J-10 and other fighters on the island. In February 2016 and January 2017, the existence of equipment likely to be surface-to-air missiles was confirmed. It has been noted that the takeoff and landing training of the H-6K bombers in the South China Sea announced by the Chinese Ministry of National Defense in May 2018 was carried out on Woody Island.

In recent years, Chinese vessels have allegedly been conducting what are likely to be survey activities in Scarborough Shoal, where a standoff took place between Chinese and Philippine government ships in April 2012. It is pointed out that new land reclamations on the shoal might be seen in the future. It is also pointed out that if China conducts land reclamations and installs radar facilities, runways, and other infrastructure on Scarborough Shoal, it could possibly increase its ability for situation awareness and power projection capabilities in the surrounding sea area and ultimately enhance its operational capabilities throughout all the areas of the South China Sea. Attention must continue to be paid to the situation going forward.

The activities in sea and airspace are expanding and intensifying as well. In March 2009, December 2013 and September 2018, Chinese naval and other vessels approached and intercepted U.S. Navy vessels navigating in the South China Sea. In May 2016, February 2017 and May 2017, PLA fighters allegedly flew close to U.S. Forces aircraft. In July and August 2016, after the Philippines-China arbitration award was rendered, PLAAF H-6K bomber aircraft conducted “combat air patrol” in the airspace close to Scarborough Shoal. The Chinese

Ministry of National Defense announced that this patrol would “become normal.” In December 2016, H-6 bombers reportedly flew along the so-called nine-dash line. In September of the same year, the China-Russia bilateral naval exercise “Joint Sea 2016” was conducted for the first time in the South China Sea.

A field training exercise by naval vessels including the aircraft carrier “Liaoning” and a naval review ceremony, regarded as the largest since the founding of China, were conducted in the same area from the end of March until April 2018. In 2019, anti-ship ballistic missile tests were reportedly conducted in the South China Sea for the first time. In 2019 and 2020, the deployment of the aircraft carrier “Liaoning” accompanied by Fuyu-class fast combat support and other ships in the South China Sea was reported. Furthermore, China Coast Guard vessels reportedly fired warning shots at fishing boats of neighboring countries. When China Coast Guard vessels interrupted Vietnam’s oil and natural gas development within its exclusive economic zone from July to October 2019, they reportedly visited Fiery Cross Reef for supply.

In April 2020, China unilaterally announced the establishment of Xisha (Paracel) District and Nansha (Spratly) District under Sansha City in the Hainan province. China conducted simultaneous military exercises in three sea areas (South China Sea, East China Sea, and Yellow Sea) in July and is believed to have launched middle-range ballistic missiles in August 2020.

Furthermore, it was announced that the aircraft carrier “Shandong” conducted an exercise in the South China Sea in May 2021, and reported that another exercise was conducted in early winter of the same year. In June of the same year, the Malaysian Air Force announced that 16 Chinese military aircraft had flown over the Luconia Shoal and approached as far as the Malaysian coast. In addition, in December of the same year, it was also reported that the aforementioned Yushen-class landing ship conducted a series of exercises in the South China Sea, and that exercises were conducted at several locations on Hainan Island facing the South China Sea. It was pointed out that the latter exercises in particular were possibly exercises simulating an amphibious operation using Hainan Island against Taiwan.

In this way, it appears that China seeks to expand its presence and enhance war-sustaining and other joint operational capabilities including military and other means in the South China Sea.

Such activities conducted by China based on its own

assertions, which are conflicting with existing laws and orders of the seas, unilaterally change the status quo and further advance its efforts to create a *fait accompli*. Japan is deeply concerned about these activities, and the concern is shared with the international community, including the United States and other G7 Member States. For example, in July 2020, the United States issued a statement from the U.S. Secretary of State saying that China’s maritime claims in the South China Sea were unlawful. In January 2022, the State Department issued a report stating that China’s unlawful territorial and jurisdictional claims gravely undermined the rule of law in the oceans.

China asserts that some of the ASEAN member states including the Philippines and Vietnam are illegitimately occupying features. However, China’s development work on the features is of a scale incomparable to the activities carried out by other countries and is conducted at a rapid pace.

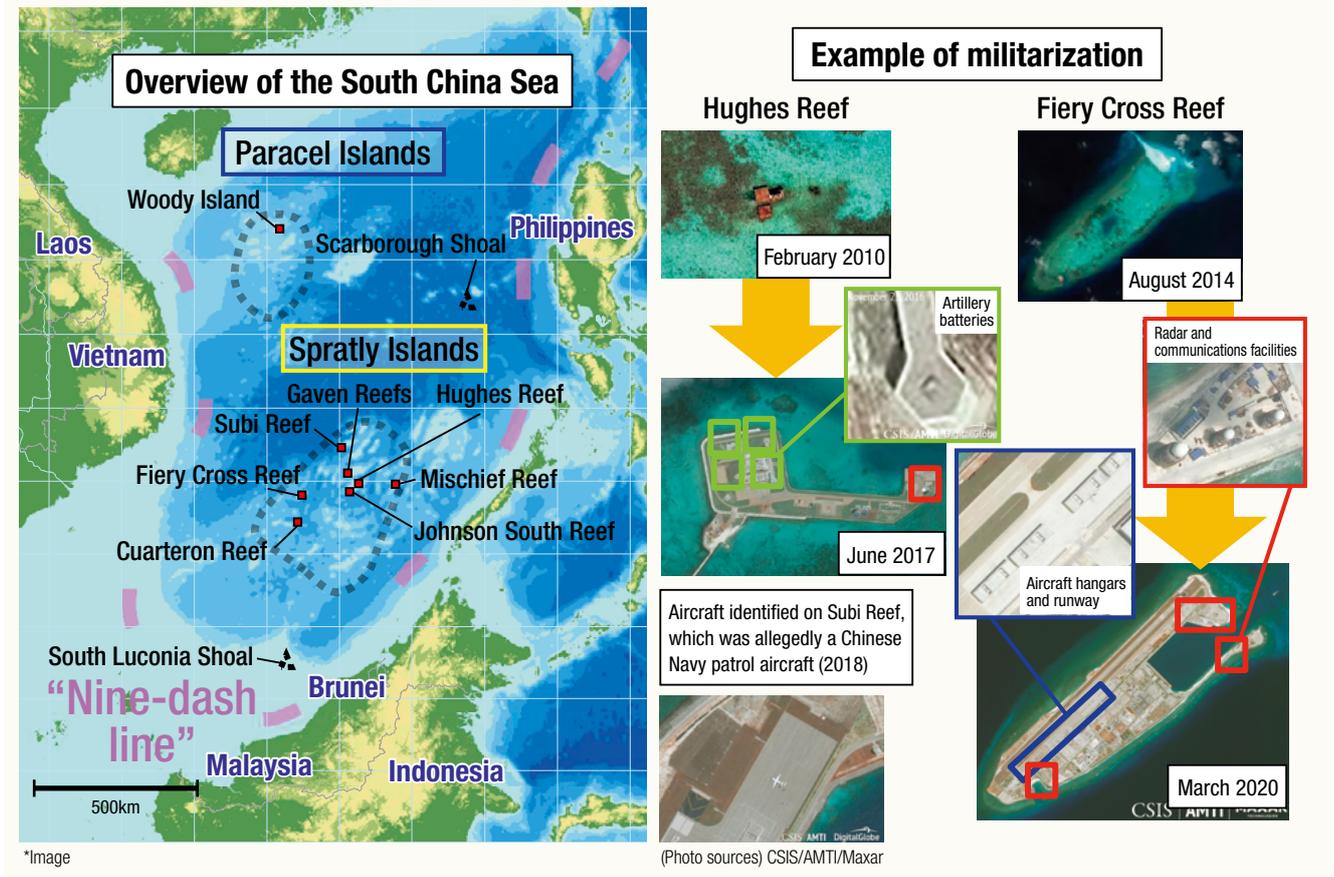
In any case, the issues surrounding the South China Sea are directly related to peace and stability in the Indo-Pacific region and are a legitimate concern not only for Japan, which has major sea lanes in the South China Sea, but also for the entire international community. Countries concerned, including China, are urged to refrain from unilateral actions that heighten tension and to act on the basis of the principle of the rule of law.

 **See** Fig. 1-3-2-15 (China’s Militarization of the South China Sea [image])

(5) Trends in the Indian Ocean and Other More Distant Waters

The Chinese Navy is considered to be shifting towards “protection missions on the far seas” and has been steadily increasing its capabilities to conduct operations in more distant waters, such as the Indian Ocean, in recent years. Progress has been seen in the Navy’s development of such equipment as large combatant ships and replenishment ships and in its operational initiatives. For example, since December 2008, Chinese Navy vessels have been deployed off the coast of Somalia and in the Gulf of Aden to take part in international counter-piracy efforts. In December 2019, the Chinese Navy conducted its first multilateral exercise with its Russian and Iranian counterparts in the northern Indian Ocean. Activities of Chinese Navy submarines have also been confirmed continuously in the Indian Ocean. They have been reported to make port calls at Sri Lanka’s Colombo, Pakistan’s Karachi, and Malaysia’s Kota Kinabalu. In January 2020, China reportedly sent a submarine for drills with Pakistan in the northern Arabian

Fig. I-3-2-15 China's Militarization of the South China Sea [image]



Sea.

Chinese forces have expanded activities not only in the Indian Ocean but also in other waters. In September 2016, China-Russia “Joint Sea” bilateral naval exercises took place in waters including the Mediterranean Sea. In November 2019, the Chinese Navy conducted its first multilateral exercises with its Russian and South African counterparts in waters around the Cape of Good Hope. China has also deployed a space observation support ship in the southern Pacific and dispatched a military hospital ship to waters including the southern Pacific as well as those near Latin America under “Mission Harmony.”

In September 2015, five Chinese military vessels reportedly sailed in the high seas of the Bering Sea and in U.S. territorial waters near the Aleutian Islands. Moreover, in January 2018, China published a white paper entitled “China’s Arctic Policy,” which mapped out a policy of active involvement in Arctic initiatives, including efforts to build a “Polar Silk Road” through the development of

Arctic sea routes. It is pointed out that China could take advantage of scientific survey and commercial activities to increase its presence including military activities in the Arctic sea.²⁹

Additionally, China has been remarkably trying to secure overseas outposts such as harbors, which would help support its operations in far seas. For example, in August 2017, China began to operate a “support base” for logistics support of the PLA in Djibouti, a strategic point in Eastern Africa facing the Gulf of Aden. Since April 2018, a pier viewed as potentially accommodating large replenishment ships has been under construction on the “support base” coast. Furthermore, it has also been pointed out that in addition to Djibouti, China may be considering or planning military logistics facilities in several other countries, including Cambodia, Myanmar, Thailand, Singapore, Indonesia, Pakistan, Sri Lanka, the UAE, Kenya, Seychelles, Tanzania, Angola, and Tajikistan.³⁰ In recent years, China has been promoting

29 According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2019).

30 According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

its “Belt and Road” Initiative (BRI) whose main purpose is advertised as establishing an economic zone in regions including the Eurasian continent, with the Chinese military possibly taking on the role of the shield behind the initiative by such means as the stabilization of areas via counter-piracy activities and the improvement of counter-terrorism capabilities in coastal states through bilateral and multilateral exercises. While it is thought that the initiative includes a strategic intention to expand its influence in the region, it is possible that the initiative will further improve the PLA’s operational capabilities in the Indian Ocean, Pacific Ocean and elsewhere. For example, China’s support for the construction of port infrastructure in Pakistan, Sri Lanka, Bangladesh and other Indian Ocean countries as well as Pacific island countries including Vanuatu could lead China to secure outposts available for its military purposes.

(6) Objectives of Activities in Waters and Airspace

The development and activities of Chinese naval and air forces, descriptions in defense white papers, China’s geographical conditions and globalizing economy, and other factors indicate that the recent water and airspace activities of the Navy, Air Force and other Chinese organizations have the following objectives:

The first is to intercept operations by adversaries in waters and airspace as far as possible from China in order to defend its territorial land, waters and airspace. Behind this objective is an increase in the effectiveness of long-range attacks due to recent progress in science and technology.

The second is to develop capabilities to deter and prevent Taiwan’s independence. China maintains that it will not allow any foreign intervention in solving the Taiwan issue and realizing the unification of China. To ensure the prevention of foreign intervention in the Taiwan issue, China needs to enhance its operational capabilities at sea and airspace as Taiwan is surrounded by the sea in all

KEY WORD



“Belt and Road” Initiative

A concept for an economic sphere proposed by President Xi Jinping. The “Silk Road Economic Belt” (“One Belt”) and the “21st Century Maritime Silk Road” (“One Road”) were announced in September and October 2013, respectively. Since then, the two concepts are collectively referred to as the “Belt and Road” Initiative.

directions.

The third is to weaken the control of other countries on

islands subject to China’s territorial claims and enhance the claims through various surveillance activities and use of force in waters and airspace surrounding these islands. Such activities are considered to also have the purpose of creating a *fait accompli* as part of the reasons for unilaterally changing the status quo and justifying China’s claims based on its own concept of “legal warfare.”

The fourth is to acquire, maintain, and protect its maritime rights and interests. China is engaged in oil and gas drilling as well as building facilities and surveying in the East and South China Seas. It has been confirmed that in addition to the existing four platforms, China has built 12 additional offshore platforms on the Chinese side of the Japan-China median line of the East China Sea since June 2013, and was also confirmed to be moving toward installing a new structure in May 2022 as well. In late June 2016, the installment of an anti-surface vessel radar and a surveillance camera was confirmed on one of the platforms. Attention is to be paid to matters regarding the platforms, including the purpose of such equipment. Japan has repeatedly lodged protests against China’s unilateral development and demanded the termination of such work.

The fifth is to defend its sea lanes of communications. In the background is the fact that its sea lanes, including its oil transportation routes from the Middle East, are essential for the Chinese economy. Given the recent strengthening of the Chinese Navy and Air Force, it is believed that they have been expanding military capabilities to cover distant waters beyond China’s near seas.

Given these objectives of China’s water and airspace activities and recent trends, it is believed that China plans to further expand the sphere of its activities, and further intensify its operations in waters surrounding Japan, including the East China Sea and the Pacific Ocean, as well as in the South China Sea and the Indian Ocean.

Meanwhile, in recent years, China has shown interest in taking steps to avoid and prevent unexpected contingencies in sea areas and airspace. For example, in April 2014, China, together with other countries such as Japan and the United States, adopted the Code for Unplanned Encounters at Sea (CUES), which sets forth the standards of behavior in the case that the naval vessels or aircraft of the Western Pacific Naval Symposium (WPNS) member states have unexpected encounters. Also, in June 2018, Japan and China started the implementation of their Maritime and Air Communication Mechanism between the Defense Authorities to avoid unexpected collisions between SDF and PLA vessels and aircraft.

7 International Military Activities

In recent years, the PLA has been indicating its positive attitude on nontraditional security missions such as peacekeeping, humanitarian assistance and disaster relief, and counterpiracy, dispatching numerous units for such overseas missions.

China has vowed to consistently support and actively participate in UN PKO, increasing its presence in UN PKO. China, for the first time, released a white paper regarding its involvement in UN PKO in September 2020 titled “China’s Armed Forces: 30 Years of UN Peacekeeping Operations.” According to this white paper, China has sent more than 40,000 military personnel on 25 missions of UN PKO. According to the UN, as of the end of December 2021, China had a total of 2,235 troops, civilian police and military observers - the largest number of peacekeepers among the permanent members of the UN Security Council - engaged in UN peacekeeping activities, including the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA). China has also largely increased its share of the UN PKO budget. The Chinese share has remained the second largest, after the U.S. share, since 2016.

Moreover, China has been actively participating in counter-piracy activities off the coast of Somalia and in the Gulf of Aden as well as humanitarian assistance and disaster relief activities. In 2011, in view of the deteriorating situation in Libya, China carried out a military evacuation of Chinese nationals for the first time.

It is pointed out that factors behind such Chinese attitude include the growing need for protecting and promoting China’s national interests overseas following the expansion of national interests beyond its national borders, China’s attempt to verify military capabilities including units’ long-distance deployment, its intent to raise its status by demonstrating its will to fulfill its responsibilities to the international community, its hope to diffuse the military’s peaceful and humanitarian images, and its attempt to enhance relations with PKO regions including African countries.

8 Education and Training

In recent years, the PLA under the policy of building a military that “can fight and win a war” has promoted practical exercises including large-scale ones such as joint exercises led by theater commands, force-on-force

exercises, landing exercises, inter-theater exercises, and large exercises including distant ones, as well as night-time exercises and joint exercises with other countries, in order to strengthen its operational capabilities. The new military training regulations in effect since January 2018 referred to the execution of joint and full-spectrum operation based on network information systems, in addition to the definite implementation of practical training as a principle. Moreover, the trial regulation on the supervision of military training that took effect in March 2019 is regarded as China’s first attempt to put in place a system that prescribes measures for rectifying practices that are inconsistent with the requirements of actual combat and criteria for identifying malpractice and discipline violations during military training.

In the education spectrum as well, the PLA aims to train soldiers who have the ability to execute joint operations. In 2003, it launched a human resource strategy project to develop human resources capable of directing joint and informatized operations, and of building joint and informatized armed forces. It was reported in 2017 that the PLA National Defense University began training to develop human resources capable of directing joint operations. In addition, the Law of the People’s Republic of China on the Protection of the Status, Rights and Interests of Military Personnel was enacted in June 2021, and the Military Service Law of the People’s Republic of China was revised in August. These lead to making the military more appealing by improving and ensuring the status of military personnel and their treatment, including of their families, as well as protecting their honor. Such moves by China to strengthen the military’s human resources base are considered important for securing more outstanding personnel and building the “world-class forces” that China is aiming for, and will be closely watched in the future.

China has been developing defense mobilization systems in order to effectively utilize private resources in case of emergencies, including wars. It enforced the National Defense Mobilization Law as the basic law for defense mobilizations in 2010 and the National Defense Transportation Law for the transportation area in 2016. The “civil-military fusion” policy that China is currently promoting is believed to have its sights set on the routine military use of civilian resources not only in emergencies but also in peacetime. The military use of civilian resources includes civilian ships’ transportation of military equipment. As such initiative generally augments China’s forces available for military missions and is expected to

proactively be promoted in the future, the initiative's implications for the Chinese military forces' operational capabilities should be watched closely.

9 National Defense Industry Sector

Under the State Administration of Science, Technology and Industry for National Defense (SASTIND) of the Ministry of Industry and Information Technology, a department of the State Council, China's main national defense industry had consisted of 12 corporations to develop and produce nuclear weapons, missiles and rockets, aircraft, vessels, information systems and other military equipment. The Chinese national defense industry's arms sales were pointed out as the second largest after those in the United States in 2017.³¹ In 2018, China National Nuclear Corporation and China Nuclear Engineering & Construction Corporation was reorganized. After China State Shipbuilding Corporation merged with China Shipbuilding Industry Corporation in 2019, the industry now comprises 10 corporations including China State Shipbuilding Corporation.

While China imports highly sophisticated military equipment and parts that it cannot produce domestically from other countries such as Russia, it is believed that China places emphasis on the enhancement of its military industrial sector, including the domestic production of equipment, to modernize its military. It has been pointed out that China is acquiring technologies ambitiously not only through domestic technology research and development and foreign direct investment, but also via illegal means in the form of secret information theft.³² The trend of the national defense industry sector is directly linked to the modernization of the military and should be closely watched with grave attention.

China's civil-military fusion policy has been evident in the technology area. China promotes two-way technological exchanges where military technologies are utilized for developing the national economy while civilian technologies are absorbed for national defense development. It also seems interested in absorbing foreign technologies available both for military and civilian purposes. It is pointed out that China's civil-military fusion policy gives

priority to initiatives in seas, outer space, cyber, AI, and other emerging areas for China. The U.S. DoD has pointed out that civil-military fusion includes six mutually related efforts: (1) fusing China's defense industrial base and its civilian technology and industrial base, (2) integrating and leveraging science and technology innovations across military and civilian sectors, (3) cultivating talent and blending military and civilian expertise and knowledge, (4) building military requirements into civilian infrastructure and leveraging civilian construction for military purposes, (5) leveraging civilian service and logistics capabilities for military purposes, and (6) expanding and deepening China's national defense mobilization system to include all relevant aspects of its society and economy for use in competition and war.^{33, 34}

In addition, in recent years, China has reportedly promoted the standardization of civilian products for their military adoption from the production stage under the civil-military fusion policy. This initiative is expected to allow the military to more effectively utilize civilian resources.

In regard to this point, the Xi Jinping administration elevated civil-military fusion to a national strategy in 2015. At a meeting of the CCP Politburo in the following year of 2016, the administration stated that elevating civil-military fusion to a national strategy was inevitable for achieving the unification of a "rich country, strong army." Furthermore, China's stance of placing importance on civil-military fusion can be seen in its establishment in 2017 of the Central Commission for Military-Civil Fusion Development, chaired by Xi, and the amendment of the Party constitution to specify a "military-civilian integration strategy." As the growth rate of national defense budget has slowed in recent years, the civil-military fusion policy is expected to become increasingly important for China, which must balance building its defense and its economy. In addition, in order to realize the aforementioned "intelligentized warfare" advocated by China, it is key to acquire advanced civilian technologies, including so-called game changing technologies, that would dramatically change future warfare. Therefore, because China's civil-military fusion policy is seen as an indispensable means to achieve this, this policy, including its relationship to "intelligentized warfare," must continue to be monitored

³¹ According to "Insights on Peace and Security," Stockholm International Peace Research Institute (SIPRI) (December 2021).

³² According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

³³ According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2021).

³⁴ The existence of the "Hundred Talents Program" and the "Thousand Talents Plan" to invite to China highly specialized human resources from overseas, including people of Chinese descent, is pointed out. As part of this, for example, it is pointed out that there are researchers with research experience in Japan who were engaged in the development of wind tunnel test facilities necessary for the development of hypersonic weapons.

with grave attention.

3 Relations with Countries and Regions

1 General Situation

China, particularly regarding maritime issues over which its interests conflict with others', continues to demonstrate its attitude of realizing its unilateral assertions without compromise, while promoting assertive actions including those to change the status quo by coercion and create a *fait accompli* for such changes, based on its own assertions incompatible with the existing international order. China has been promoting its BRI as a national strategy, but some BRI-participating countries have recently been reconsidering BRI projects due mainly to their fiscal deterioration. Furthermore, it has been pointed that there have been moves toward creating China's own international order, including the establishment of China-led multilateral mechanisms in security, financial to influence political decisions in other countries through efforts such as winning over foreign politicians.³⁵

At the same time, China recognizes that a peaceful and stable international environment is necessary for maintaining sustainable economic development and enhancing China's overall national power. Based on such recognition, China has advocated building a "community of shared future for mankind" and referred to promoting the building of "a new type of international relations based on mutual respect, equity and justice, and win-win cooperation." China proactively carries out military exchanges with other countries. In recent years, China has been engaged in active military exchanges not only with major powers such as the United States and Russia and with its neighboring countries including Southeast Asian countries, but also with countries in Africa and Latin America. The objectives of China's promotion of military exchanges are thought to include alleviating other countries' concerns regarding China by strengthening its relations with these countries, creating a favorable security environment for China, enhancing China's influence in the international community, exploring overseas arms markets, securing stable supplies of natural resources, and ensuring foreign bases.

With regard to the COVID-19 infections that emerged in

China, some question China's initial response and delay in providing relevant information. In this situation, there are also views that China is aiming to increase political and economic interest in its own country, while strategically working to form an international and regional order that is advantageous to China and expand its influence by leveraging support for the COVID-19 infection countermeasures such as so-called "mask diplomacy" and "vaccine diplomacy." Furthermore, in June 2021, China jointly proposed the Initiative for Belt and Road Partnership on COVID-19 Vaccines Cooperation with 28 countries, including ASEAN and Central Asian countries, thus attempting to take the lead in multilateral vaccine-related plans.

2 Relations with Russia

Ever since the so-called China-Soviet confrontation ended in 1989, China and Russia have placed importance on their bilateral relationship. They have emphasized the deepening of their "strategic partnership" since its establishment in the mid-1990s. In 2001, the China-Russia Treaty of Good-Neighborliness and Friendly Cooperation was concluded. In 2004, the long-standing issue of border demarcation between the two countries came to a settlement. The two countries have a common view on promoting the multipolarization of the world and the establishment of a new international order, and have further deepened their relations. At the China-Russia summit meeting in early February 2022, the two countries assessed China-Russia relations as "superior to political and military alliances of the Cold War era." Furthermore, for example, amid growing tensions in U.S.-China and U.S.-Russia relations, China and Russia have consistently deepened their cooperation. Each country is believed to be planning to create an international environment favorable to itself by taking a united stance on security issues, such as Taiwan and issues surrounding NATO's eastern expansion, which are in conflict with the United States and others.

Specifically, in the joint statement released after the aforementioned China-Russia summit meeting, the two sides showed mutual understanding and support on

³⁵ According to the statement by then-Australian Prime Minister Malcolm Turnbull in December 2017.

various points. They affirmed their opposition to Taiwan independence and further NATO expansion, concern over the establishment of AUKUS, and calls for the withdrawal of the U.S. plan to deploy shorter- and intermediate-range ground-based missiles in the Asia-Pacific region and in Europe. Furthermore, China and Russia confirmed that “there are no ‘forbidden’ areas of cooperation” between the two countries and that they would continue to maintain high-level mutual visits in a close manner, effectively deal with external interference and regional security threats, and defend global strategic stability. They also emphasized that they would conduct coordination and cooperation, and the need to fulfill responsibilities of major powers.

Since Russia began its aggression against Ukraine on February 24, 2022, China has taken the position that it is not concerned with Russia’s plans for aggression. However, China does not blame Russia, and insists that Russia’s actions are caused by the “Cold War mentality” of the NATO member countries including the United States, and that it understands Russia’s reasonable concerns on security issues. Furthermore, China emphasizes that both China and Russia have made it clear that the so-called “provision of military assistance to Russia by the Chinese side” is complete disinformation.

On the military front, since the 1990s, China has purchased modern weapons from Russia, including fighters, destroyers, and submarines. Russia is currently the largest supplier of weapons to China.³⁶ Although China-Russia arms transactions in value in recent years have been lower than in some past period, China has apparently continued to indicate its strong interests in importing advanced Russian defense equipment and in joint equipment development with Russia. For example, China has introduced what are believed to be the latest fourth generation Su-35 fighters and the S-400 surface-to-air missile system from Russia. China has been reported as the first country to import the Russian S-400 missile system. It is also suggested that Russia has concerns about competing with China in arms exports taking into consideration China’s improvement of technological power.

Military exchanges between China and Russia take place in such forms as routine mutual visits by senior military officers and bilateral and multilateral exercises. For example, China participated in the Vostok 2018 exercise, viewed as one of the largest Russian military

exercises since the end of the Cold War, the Tsentr-2019 exercise in 2019, Maneuvers “Kavkaz 2020” in 2020, and Zapad/Interaction-2021 in 2021. Additionally, the two countries have held the large-scale bilateral naval exercise “Joint Sea” since 2012. The annual exercise for 2016 took place in the South China Sea for the first time, and that for 2017 was held in the Baltic Sea and Sea of Okhotsk for the first time. In October 2021, a group of vessels, including a Renhai-class destroyer, participated in the exercise, which was conducted in the Sea of Japan. Furthermore, China and Russia continued this by conducting their first joint navigation around Japan by a total of 10 vessels from both countries. In 2016 and 2017, the two countries held the “Aerospace Security” missile defense computer-simulated exercise. Furthermore, China has held the counterterrorism joint exercise “Peace Mission” between China and Russia or among the member countries of the Shanghai Cooperation Organization (SCO), established in June 2001 including Russia. China likely regards these exchanges as an opportunity to learn about how to operate Russian-made weapons and the operational doctrine of the Russian Armed Forces, which have combat experiences.

In addition, moves indicating deepened China-Russia relations have been confirmed in recent years. In the two countries’ “first joint strategic flight” of bombers in July 2019, their bombers joined in the Sea of Japan and flew to the East China Sea. In September 2019, China and Russia signed a series of documents on cooperation in the military and military technologies.³⁷ Similar trends continued in 2020. In December that year, Russian Defense Minister Sergey Shoigu and Chinese Defense Minister Wei Fenghe held a video teleconference and signed a protocol on the extension of the intergovernmental agreement on mutual notifications of ballistic missile and carrier rocket launches for 10 years. In the same month, Russian and Chinese bombers conducted a long-distance joint flight from the Sea of Japan to the East China Sea and the Pacific Ocean. Bombers from both countries also conducted a long-distance joint flight in November 2021. Comparing the previous two joint flights by Chinese and Russian aircraft, diversification of the flight pattern was seen in 2021, including that it was conceivable that the aircraft mutually passed through Chinese and Russian airspace and then advanced to the Sea of Japan before reaching the vicinity of Japan. Bombers from both countries further conducted

³⁶ According to “Arms Transfers Database,” SIPRI.

³⁷ According to the Russian military newspaper *Krasnaya Zvezda* (the “Red Star”) on September 6, 2019.

another long-distance joint flight in May 2022 amidst the Russia's aggression against Ukraine, flying farther out into the Pacific Ocean than ever before. There is a possibility that China and Russia will conduct such joint activities on a regular basis in the future, including the aforementioned joint navigation around Japan by Chinese and Russian vessels in October 2021, and further deepen their military cooperation. In addition, both countries have announced that continuing on from 2020, the purpose of the joint flights was to deepen and develop the comprehensive partnership relations in the new era.

These developments, including the strengthening of military cooperation between China and Russia, not only have a direct impact on the security environment surrounding Japan, but may also have strategic effects on the United States and Europe, and should be watched with concern.

3 Relations with North Korea

China has kept close relations with North Korea under the 1961 Sino-North Korean Mutual Aid and Cooperation Friendship Treaty. In June 2019, President Xi Jinping became the first Chinese president to visit North Korea in 14 years, and held his fifth summit meeting with Chairman Kim Jong-un. In July 2021, President Xi and Chairman Kim Jong-un exchanged congratulatory messages on the occasion of the 60th anniversary of the Sino-North Korean Mutual Aid and Cooperation Friendship Treaty. Both sides confirmed the significance of the treaty as “friendship forged in blood” and expressed their desire to further strengthen relations. In September of the same year, President Xi Jinping sent a congratulatory message to Chairman Kim Jong-un on the 73rd anniversary of the founding of North Korea. In the message, President Xi expressed that he attached great importance to the development of China-North Korea relations. He also stated that he was willing to work with Chairman Kim to develop the friendly and cooperative relations between the “two countries” in a long-term and steady manner for constant and new achievements, so as to better benefit the two countries and their people. President Xi also expressed his intention to maintain close relations even amidst COVID-19.

China has reportedly adopted three principles on the Korea Peninsula - (1) the denuclearization of the Korean Peninsula, (2) the maintenance of peace and stability on the Korean Peninsula, and (3) the resolution of problems through dialogue and consultations - indicating that China

gives priority to the maintenance of stability and dialogue as well as the denuclearization. Under these principles, China, while agreeing to UN Security Council resolutions to enhance sanctions on North Korea, cooperated with Russia in distributing a draft resolution including a proposal to lift some of the UN sanctions at the council.

Although China has vowed to have seriously observed its international obligations, it has been pointed out that Chinese ships have been involved in illicit ship-to-ship transfer prohibited by the UN Security Council resolutions.

4 Relations with Other Countries

(1) Relations with Southeast Asian Countries

As for its relations with countries in Southeast Asia, reciprocal summit-level visits and other activities continue to be actively carried out. China is also actively involved in multilateral frameworks such as ASEAN Plus One (China), ASEAN Plus Three (Japan, China and the ROK), East Asia Summit (EAS) and ASEAN Regional Forum (ARF). At the ASEAN-China Special Summit in November 2021, there was an announcement on the elevation to the ASEAN-China Comprehensive Strategic Partnership. Furthermore, China has developed bilateral relations through infrastructure development support, etc., under the BRI.

On the military front, there seems to be moves that China has made efforts toward military confidence building, such as the first ASEAN-China Maritime Field Training Exercise, which took place in October 2018. In July 2019, it was reported that a secret deal on China's exclusive use of part of Cambodia's Ream Naval Base had been signed between the two countries. Concerning this matter, the Cambodian side denied the existence of such a fact, saying that hosting foreign military bases is against its Constitution. In addition, in June 2021, Cambodia's Minister of National Defense acknowledged that China had contributed to the development of the Ream Naval Base, which the United States is considered to have concerns about in regard to its military use by China. However, he stated that access to the base facilities was not limited to China alone.

In July 2016, an arbitration award based on the United Nations Convention on the Law of the Sea (UNCLOS) adjudicating the Philippines' case against China in the South China Sea was rendered, accepting most of the Philippine claims. After that, the Philippines was said to have refrained from referring to the arbitration award. In September 2019, however, a Philippine Presidential

Office spokesperson noted that the arbitration award was still a subject in bilateral talks, and in September 2020, President Rodrigo Duterte remarked at the United Nations General Assembly that, “The (Arbitral) Award is now part of international law beyond compromise and beyond the reach of passing governments to dilute, diminish, or abandon.” In April 2019, the Philippines announced a protest statement against China over massive Chinese fishing boats confirmed as near Thitu Island under effective Philippine control among the Spratly Islands. Furthermore, the Government of the Philippines announced that it had lodged a protest in April 2020 against China in relation to an incident in which a Chinese ship irradiated a Filipino ship in February 2020. In March 2021, approximately 220 maritime militia vessels were confirmed near Whitsun Reef in the Spratly Islands. The Philippine government expressed deep concern and demanded that the Chinese government promptly withdraw the vessels. Furthermore, in November 2021, the Philippine Foreign Minister issued a statement of protest about obstruction of work caused by the use of a water cannon by Chinese Coast Guard vessels against supply vessels that were working to supply the Philippine military in the Spratly Islands. In response, the Chinese Ministry of Foreign Affairs justified the response by claiming that the Philippine supply vessels had entered Chinese waters without China’s approval, and stating that the Chinese Coast Guard vessels were performing their official duties in accordance with the law and protecting Chinese territorial sovereignty.

In July 2017 and March 2018, the Vietnamese government reportedly made foreign companies, engaged in oil drilling in the South China Sea with the permission of the Vietnamese government, cancel the drilling under the pressure from China. Chinese and Vietnamese government ships staged a standoff over oil and natural gas drilling within Vietnam’s exclusive economic zone from July 2019 until Vietnam withdrew its HAKURYU-5 drilling rig in October of that year to end the standoff. The Government of Vietnam also announced in April 2020 that it had protested the Chinese side concerning the incident in which a China Coast Guard vessel rammed and sunk a Vietnamese fishing boat near the Paracel Islands. On the other hand, in December 2021, the joint medical exercise “Peace Rescue 2021” was conducted for the first time by the Chinese and Vietnamese militaries to improve the medical support capabilities of both militaries. During the exercise, the Chinese side provided the Vietnamese side with medical masks, protective clothing, and PCR test

equipments.

Indonesia has had frequent disputes with China over Chinese fishing boats’ operations within Indonesia’s exclusive economic zone and taken strong actions against foreign fishing boats engaging in alleged illegal operations. Recently, the Indonesian government filed a strong protest against Chinese fishing boats’ illegal operations near Indonesia’s Natuna Islands from December 2019 to January 2020, rejecting China’s assertion on the nine-dash line anew.

China and ASEAN have continued talks to discuss the formulation of the Code of Conduct of Parties in the South China Sea (COC) and Chinese Premier Li Keqiang announced in November 2018 that he hoped to complete negotiations within three years. In July 2019, China announced at the Chinese and ASEAN Foreign Ministers’ meeting that they had completed the first reading of the Single Draft COC Negotiating Text. Subsequently, a second reading was initiated. At the August 2021 ASEAN Foreign Ministers’ Meeting, it was noted that a provisional agreement on the Preamble had been reached. Despite the effects of COVID-19 and other factors, in the Joint Statement of the ASEAN-China Special Summit in November of that year, there was mention of expectations for the early conclusion of an effective and substantive COC in accordance with international law, including UNCLOS.

(2) Relations with Central Asian Countries

The Xinjiang Uyghur Autonomous Region, located in the western part of China, is situated next to Central Asia. Therefore, China is deeply concerned about the political stability and security situations, such as terrorism by Islamic extremists, in Central Asian states. Such concerns of China appear to be reflected in China’s tightened border control and its engagement in the SCO and the stabilization of Afghanistan. Moreover, China is strongly interested in Central Asia, with a view to diversifying its supply sources and procurement methods for resources. China promotes cooperation in the energy field with Central Asian countries, such as the construction of oil and natural gas pipelines between China and Central Asian nations.

(3) Relations with South Asian Countries

China has a close relationship with Pakistan under their “all-weather strategic partnership,” and mutual visits by their summit leaders take place frequently. Their cooperation in the military sector, including bilateral

exercises, exporting weapons, and transferring military technology, is also deepening. As the importance of sea lanes increases for China, it is believed that the importance of Pakistan is rising for China accordingly, partly because of the geopolitical features of Pakistan which faces the Indian Ocean. The China-Pakistan Economic Corridor (CPEC), a China-supported development plan for power facilities and transportation infrastructure in the region stretching from the Port of Gwadar to Kashgar in the Xinjiang Uyghur Autonomous Region, is a flagship project of the BRI. While some have pointed out that the project has run into difficulties, as indicated by delays and partial withdrawals due to Pakistan's deteriorating financial situation and terrorist attacks by extremist groups on CPEC-related projects, the project's progress is expected to further increase China's influence in Pakistan.

Although economic ties between China and India are strengthening, the two countries have not demarcated their borders in areas such as Kashmir and Arunachal Pradesh.

In May 2020, a clash between Chinese and Indian forces occurred near the China-India border in Ladakh, India, and tensions between the two countries escalated with the first deadly clash in 45 years on June 15 of the same year. Since then, China and India have regularly held commander-level meetings based on the management agreement for the Line of Actual Control, a temporary border between the two countries. They agreed to separate their forces at Pangong Lake in February 2021 and in the Gogra area in July of the same year. The countries are currently still continuing efforts to gradually ease tensions.

Amidst this, China enacted its National Land Boundary Law in October of the same year, which stipulates defense of land borders as a military mission. The spokesperson of the Indian Ministry of External Affairs stated that the China-India border issue had not been resolved, and that India was concerned about China's unilateral attempt to enact legislation which could have implications on the countries' existing bilateral arrangements on border management as well as on the boundary issue. However, the spokesperson of the Chinese Ministry of Foreign Affairs stated that the main purpose of the law is to "strengthen boundary management and advance international cooperation," and that China hopes that "relevant countries will abide by norms of international relations and refrain from wanton speculations on China's normal domestic legislation." In addition, China has been observed to be building bridges

and unilaterally establishing location names in areas disputed with India.

In recent years, China has also been deepening its relations with Sri Lanka. To Sri Lanka, which is located at a strategic point in the Indian Ocean and supports the BRI, China has provided massive economic and technical cooperation in infrastructure development, including for railroads, ports, and airports. China also gave Sri Lanka a Jiangwei-class frigate in July 2019. On the other hand, in July 2017, an agreement was reached to lend interests for 99 years to Chinese enterprises at the Port of Hambantota, which is being constructed with Chinese loans. Some have noted that this constitutes what has been described as a "debt trap." In January 2022, President Rajapaksa met with Foreign Minister Wang Yi and requested that the debt repayment plan be reconsidered due to the economic crisis caused by the spread of COVID-19 infections.

Additionally, China is deepening its relations with Bangladesh through its port development in Chittagong where a naval base is located, arms exports including Ming-class submarines, and other deals.

(4) Relations with European Countries

For China, the European Union (EU) countries have become an important partner especially in the economic field.

European countries possess more advanced military technologies than China or Russia regarding information and communication technology, avionics/aeroengines, air independence propulsion (AIP) systems for submarines, and other areas. The EU countries have maintained their arms embargo on China since the Tiananmen Square incident in 1989, and China has requested them to lift the embargo.³⁸ If the EU arms embargo on China were lifted, sophisticated military technologies could be transferred to China and to third countries via China, dramatically changing the security environment in the Indo-Pacific and other regions.

China's recent rise has attracted attention from the NATO as well. The Communiqué issued at the June 2021 NATO summit conference stated, "China's stated ambitions and assertive behavior present systemic challenges to the rules-based international order," and expressed concern over China's rapid buildup of its nuclear capabilities, lack of transparency, and use of disinformation. The Communiqué also mentions engaging with China for the security interests

38 According to the policy paper on the EU released by China in December 2018.

of the Alliance, and calls on China to act responsibly in the international community.

China's relations with European countries, including EU discussions on the arms embargo on China and NATO's policy on engagement with China, should be continuously watched.

(5) Relations with Middle East and African Countries, Pacific Island countries, and Central and South American Countries

China has been enhancing its relations with Middle Eastern and African nations in the economic realm. In recent years, it has also strengthened military relations with them. Not only intensive interactions among state leaders and senior military officials but also arms exports and exchanges between military forces are actively conducted. China also actively dispatches personnel to undertake UN PKO in Africa. Some suspect that underlying these movements could be China's aim to ensure a stable supply of natural resources and to secure overseas bases in the future.

China is Australia's biggest trade partner. However, there has been economic friction between the two countries such as China's successive restriction on importing Australian beef and other goods since Australia suggested the necessity for an independent investigation into the origin of COVID-19. China has also been boosting its relations with Pacific island countries by providing them with proactive and continuous economic support and medical services deploying a military hospital ship. China has promoted resources development in Papua New Guinea and signed an agreement with the island country on military cooperation. China has also been moving to enhance military relations with Vanuatu, Fiji, and Tonga. In addition, when a volcanic eruption occurred in Tonga in January 2022, China dispatched transport aircraft and supply ships. While China has been enhancing relations with Pacific island nations, Australia and some other countries have expressed concerns about such Chinese moves.

China has been striving to further deepen its relations with Central and South American countries, holding ministerial meetings with the Community of Latin American and Caribbean States (CELAC) since 2015. In the military field, China has dispatched senior officials and sold arms to these countries and enhanced relations with them in medical services, counterterrorism and

other areas. In Argentina, China operates an outer space observation facility.

5 International Transfer of Weapons

China has been expanding exports of weapons such as small arms, tanks, aircraft including drones, and ships. China's major arms export destinations include Pakistan, Bangladesh, and Myanmar. China has also been reportedly exporting arms to Algeria, Tanzania, Nigeria, Sudan, and other African countries, Venezuela and other Latin American countries, Iran, Saudi Arabia, and other Middle Eastern countries, and Turkmenistan, Belarus, and other former Soviet Union countries. Recently, Serbia has been reported likely to become the first European country to introduce Chinese UAVs. In addition, in December 2021, there were reports that Saudi Arabia was manufacturing ballistic missiles with Chinese technical support. Some claim that China has transferred weapons to foreign countries in order to strengthen its strategic relationships with friendly nations, enhance its influence in the international community, and secure natural resources. China has not participated in some of the frameworks for international arms export control, and some point out that missile-related and other technologies have been transferred from China to other countries.

Section 3

Relations between the United States and China, etc.

1 Relations between the United States and China (General Situation)

With regard to the relationship between the United States, the world's largest economic power (GDP approximately US\$22,997.5 in 2021¹), and China, the second largest in the world (GDP approximately US\$17,458 in 2021²), competitions between the two countries across the political, economic and military realms have become increasingly apparent in recent years. This is due to various concerns such as changes in the balance of power caused by China's growing national power, trade issues, issues concerning the South China Sea, the Taiwan issue, the Hong Kong issue, and human rights issues in China regarding Uighur and Tibet. In particular, since the former Trump administration, the moves of the United States and China that had kept each other in check have come to the surface even more. Under the Biden administration as well, there has been strong interest in the irreversible developments in the strategic competition between the two countries.

In January 2021, the government of the United States declassified and released part of the "U.S. strategic framework for the Indo-Pacific," approved by the president in February 2018. This document functioned as comprehensive strategic guidelines for implementing the national security strategy during three years of the former Trump administration, and the United States expresses the view in the document that "China aims to dissolve U.S. alliances and partnerships in the region. China will exploit vacuums and opportunities created by these diminished bonds." As efforts towards China, in terms of the military aspect, it is stated in the document that the United States aims to be capable of "denying China sustained air and sea dominance inside the 'first island chain' in a conflict" and "defending the first-island-chain nations, including Taiwan."

In March 2021, the U.S. Government released its Interim National Security Strategic Guidance (hereinafter "Interim Guidance"). The Interim Guidance was issued to convey the vision of the Biden administration and provide guidance for the formulation of the NSS. It states that in order for the

United States to ensure its advantages endure amidst the shift in global dynamics and accelerating global challenges, including rivalry with China, Russia, and other authoritarian states, the pandemic, climate crisis, nuclear proliferation, and the technological revolution, the United States must cooperate with its allies and the international community and resume a leadership role in international institutions. It also describes China as "the only competitor potentially capable of combining its economic, diplomatic, military, and technological power to mount a sustained challenge to a stable and open international system." It indicates the view that China has invested heavily in efforts meant to check U.S. strengths and blocking efforts to protect U.S. interests and allies around the world. As efforts towards China developed by taking these points into consideration, the Interim Guidance states that the national security priorities are deterring Chinese aggression by bolstering the United States' unparalleled network of allies and partners and making smart defense investments, as well as confronting unfair and illegal trade practices, cyber theft, and coercive economic practices that seek to undercut advanced and emerging U.S. technologies and erode the United States' strategic advantage and national competitiveness. In particular, in terms of military aspect, the Interim Guidance states that the United States will assess the appropriate structure, capabilities, and sizing of the force to meet the challenges of China and others, and shift emphasis from unneeded legacy platforms and weapon systems to free up resources for investment in cutting-edge technologies and capabilities.

U.S. National Security Advisor Jake Sullivan and Yang Jiechi, a member of the Central Politburo of the Communist Party of China, had a long-hours meeting in Rome, Italy, on March 14, 2022 concerning the Russia's aggression against Ukraine since that February, during which the U.S. emphasized the risk of China's cooperation with Russia. In response to this, China emphasized that it was providing Ukraine with emergency humanitarian assistance and would continue

¹ According to the published figures of IMF (as of April 2022).

² Ibid.

with its own efforts with contribution to promoting mediation and dialogue.

In regard to trade issues, the United States and China have been countering each other through phased raising of tariffs since 2018. In January 2020, however, the United States and China reached the Phase 1 deal, which places China's expansion of import volumes from the United States as a pillar, and the two countries also reduced some additional tariffs. In October 2021, U.S. Trade Representative Tai and Chinese Vice Premier Liu He held an online meeting in which they reviewed the implementation of the Phase 1 deal and agreed to discuss unresolved issues.

Concerning sensitive technologies and critical technologies, the United States is elevating a sense of vigilance against China. In the Interim Guidance, the United States positions economic security as part of national security, and is devoting energy into the protection and development of sensitive and critical technologies. Under the recognition that the leakage of sensitive technologies and critical technologies would increase China's military power and thus threaten U.S. security, in 2018, the United States enacted the Export Control Reform Act, which serves as the basis for regulations on dual-use items for both military and civilian applications. With the enactment of the Export Control Reform Act, the United States also expanded the scope of regulations on technologies including emerging one by establishing new export control policies, including adding new areas subject to regulation. Furthermore, the United States is strengthening control of critical technologies, including implementing a measures to place visa restrictions on certain Chinese persons and add Chinese firms such as Huawei to its Entity List, which restricts the export from the United States for reasons, such as stealing American trade secrets, involvement in human rights abuses, and militarization activities in the South China Sea. In addition, in June 2021, an executive order was issued aimed at ensuring that U.S. investments do not support Chinese military-industrial complex companies. The Executive Order published Non-SDN Chinese Military-Industrial Complex Companies List and prohibited the purchase or sale of any publicly traded securities by a United States person, which means any United States citizen, lawful permanent resident, entity organized under the laws of the United States and so on, for companies on this list. In this way, the United States is further bolstering its efforts to prevent the diversion of critical and sensitive

technologies of its own country, its allies, and others to strengthen China's military power.

Meanwhile, China, in its 2019 Defense White Paper, states that "the US is engaging in technological and institutional innovation in pursuit of absolute military superiority." At the same time, the report also expresses the view that "the application of cutting-edge technologies such as artificial intelligence (AI) is gathering pace in the military field," and "International military competition is undergoing historic changes." Furthermore, at the Fifth Plenary Session of the 19th Central Committee of the Chinese Communist Party in October 2020, China emphasized the importance of recognizing self-reliance and self-strengthening of science and technology as the strategic support to the country's development and stressed the necessity to uphold the system and mechanism of science and technology innovation. In response to the tightening of regulations by the United States and other foreign countries, China has been enforcing a series of countermeasures, such as laws and regulations, since 2020. In September 2020, China implemented its Unreliable Entity List in response to the U.S. Entity List. In December of the same year, China's Export Control Law entered into force to control the export of technology and the like related to China's national security and interests.

Furthermore, in January 2021, China passed new rules to protect its firms from "unjustified extra-territorial application of foreign legislation and other measures." In addition to this, in June of the same year, China announced the entry into force of the Anti-Foreign Sanctions Law and implemented sanctions against U.S. individuals and organizations, including the former U.S. Secretary of Commerce, and is continuing deliberations to apply the Law to Hong Kong as well.

Competition in the technology field between the United States and China is likely to intensify further in the future as both sides continue to reciprocate each other's efforts to set forth new regulations, and the effects of which can be seen to be spreading internationally.

While China emphasizes its uncompromising stance on the country's core interests and significant concerns, the United States also indicates an uncompromising stance on its national security. Going forward, it is deemed that the strategic competition between the United States and China will become more prominent in various fields.

2 Military Trends of the United States and China in the Indo-Pacific Region

1 General Situation

During the former Trump administration, the United States indicated that the re-emergence of long-term strategic competition from revisionist powers including China was a central challenge to its prosperity and security. With this as a backdrop, the United States recognizes that China is pursuing regional hegemony in the Indo-Pacific in the near future through the modernization of its military and other efforts.³ The Biden administration is continuing to take the deterrence stance against China. In February 2021, President Biden, in his address on diplomatic policies, called China “the most serious competitor” of the United States, and then in his remarks to the Department of Defense in the same month mentioned that the United States would need to respond to the issues brought by China for defending its interest in the Indo-Pacific and around the world.

Furthermore, in March 2021, the United States released its Interim Guidance in which it describes China as “the only competitor potentially capable of combining its economic, diplomatic, military, and technological power to mount a sustained challenge to a stable and open international system.” At the congressional hearing held in the same month, the Commander of the U.S. Indo-Pacific Command (USINDOPACOM) Phil Davidson described the military balance in the Indo-Pacific as not desirable to the United States and its allies, and pointed out the growing risk of China seeking to change the status quo in the region. He testified that China was accelerating its ambitions for taking the U.S.’s leading role in a rules-based global order, and that China’s ambitions for Taiwan would become clear within the next six years. In response to such a U.S. perception, China expressed that it expects the United States to abandon the outdated zero-sum thinking and take more rational and practical policies towards China. In November of the same year, at the Aspen Security Forum on national security held by the United States, U.S. Chairman of the Joint Chiefs of Staff Milley pointed out that the coming 10 to 20 years will be a significant challenge for national security because China’s aspiration is to challenge the United States globally and to revise the

international order to their advantage.⁴ In September of the same year, a U.S.-China summit telephone talk was held, in which the two leaders discussed the responsibilities of the United States and China to ensure that the competition between the two countries does not veer into conflict. During the telephone talk, President Biden underscored the enduring interest of the United States in the peace, stability, and prosperity of the Indo-Pacific region and the world. President Xi Jinping called for cooperation in various areas of international issues, such as climate change and economic recovery, while also criticizing the United States’ tough stance toward China. In addition, the National Defense Authorization Act for FY2022, which was enacted in December of the same year, placed importance on strategic competition with China and Russia. It added new initiatives to strengthen the posture and capabilities of U.S. forces in the Indo-Pacific region, including the formulation of a United States National Strategy with respect to China and the implementation of an annual report on Taiwan. In the Joint Statement of the Japan-U.S. “2+2” Meeting in January 2022, the United States expressed its determination to optimize its posture and capabilities in the Indo-Pacific.

The DoD Annual Report to Congress 2021 pointed out that China aims to displace U.S. alliances and security partnerships in the Indo-Pacific region and revise the international order to be more advantageous to China’s authoritarian system and national interests.

In relation to the U.S.-Russia Intermediate-Range Nuclear Forces (INF) Treaty, which came to an end in August 2019, the United States demands the inclusion of China into arms control negotiations, as China has beefed up land-based conventional ballistic missile capabilities outside the framework of the INF Treaty. In addition, the United States expressed the same view in the process of the extension negotiation of the New START Treaty (Strategic Arms Reduction Treaty), of which the extension was decided in February 2021, clearly showing its intention to put a certain degree of brake on China’s missile capability development. However, China has been consistently refusing⁵ to slow down, claiming that the United States should lead the

3 According to “United States National Defense Strategy” (January 2018).

4 DOD NEWS NOV.3.2021

5 According to the website of the Ministry of Foreign Affairs of China on December 11, 2019.

implementation of disarmament.

The United States has reiterated that the Article 5 of the Japan-U.S. Security Treaty applies to the Senkaku Islands. This was confirmed in February 2017, in the joint statement from the first Japan-U.S. summit meeting since the inauguration of the former Trump administration, which explicitly referred to the application of Article 5 of the Treaty to the Senkaku Islands. The U.S. policy on this matter remains the same and has been confirmed since the inauguration of the Biden administration through summit telephone talks, defense ministerial meetings, foreign ministerial meetings, and the Joint Statement of the Japan-U.S. “2+2” Meeting in January 2022. China has shown its strong protest against these stances. With regard to the issues over the South China Sea, the United States is concerned about such dimensions as obstruction to the freedom of navigation in sea lanes, restrictions on the activities of U.S. Forces, and the worsening security situation in the entire region. The United States has requested China to comply with international norms, and has repeatedly criticized China’s unilateral and assertive actions. And the United States also implements the Freedom of Navigation Operation in the South China Sea and other waters to counter excessive claims to maritime interests by other countries such as China and calls for demilitarizing the South China Sea.

In this way, while China is rapidly strengthening military power against the backdrop of its economic development and other factors, changes in the military power balance between the United States and China can affect peace and stability of the Indo-Pacific. Thus, the U.S.-China military trends in the region concerning the South China Sea and Taiwan will require further attention.

2 South China Sea

Since 2014, China implemented rapid and large-scale land reclamation projects in the Spratly Islands. Following the completion of the land reclamation in 2015, even after the illegality of the Chinese activities such as land reclamation was determined at the Philippines-China arbitration in July 2016, China has made it clear that it would not comply with the decision and has been promoting its plan to militarize

the area. It has also been pointed out that if China were to consider bastion operations (fortification) to enhance the survivability of new types of long-range SLBMs capable of targeting the U.S. mainland, the South China Sea would be the preferred option.⁶

China has also been actively conducting military activities in the South China Sea, including its announcing a military exercises conducted with an aircraft carrier in the South China Sea in May 2021 and implementing a military training in a wide area of the South China Sea, including off Hainan Island and the Paracel Islands in August of the same year.

Moreover, China utilizes not only its military forces but also the Coast Guard, which is a “maritime law enforcement organization” in the Coast Guard law, and so-called maritime militia to increase pressure on the neighboring countries.

Furthermore, in April 2020, a Chinese Coast Guard ship rammed and sunk a Vietnamese fishing boat near the Paracel Islands, while in May 2020, a Coast Guard ship interfered with Filipino fishermen’s operations. In this way, there have been cases that interfered with fishery activities of the neighboring countries in the South China Sea. In February 2021, the China Coast Guard Law, which stipulates the responsibility and authority of the China Coast Guard including the use of weapons, entered into force. This Law includes problematic provisions in terms of their inconsistency with international law. Sources of inconsistency include, among others, ambiguity as to geographical areas the Coast Guard Law applies and how the rules governing the use weapons are implemented, and neighboring countries started expressing concerns about Chinese moves. The Philippines announced that its Minister of Foreign Affairs had protested against the CCG Law through a diplomatic route. Furthermore, in Vietnam a foreign ministry spokesperson commented that, “Vietnam requests relevant countries that they respect Vietnam’s sovereignty, sovereign rights, and jurisdiction in the South China Sea, responsibly and faithfully enforce international laws and the United Nations Convention on the Law of the Sea, and avoid behavior that raises tension between countries.” In addition, in March of the same year, the Philippine government announced that it had confirmed approximately 220 Chinese militia ships near Whitsun

⁶ According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

Reef and expressed concern. In November of the same year, Philippine supply ships were blocked and water-cannoned by Chinese Coast Guard vessels at the Second Thomas Shoal which is under the effective control of the Philippines, prompting the Philippine government to lodge protest against China.⁷ In addition, in June of the same year, the Malaysian Air Force announced that 16 Chinese military aircraft had flown over the Luconia Shoal and approached as far as the Malaysian coast. In October of the same year, a Chinese research vessel and other vessels entered Malaysia's exclusive economic zone, which the Malaysian government protested against.

With regard to the issues over the South China Sea, the United States has been criticizing China's behavior and implementing the Freedom of Navigation Operations. Under the Biden administration following on from the former Trump administration, the United States has been demonstrating more severe stance against such moves by China.

In July 2020, the United States released a U.S. Secretary of State's statement entitled "U.S. Position on Maritime Claims in the South China Sea," and accused China of illegal maritime claims across most areas of the South China Sea. In August of the same year, the U.S. Department of State announced visa restrictions on Chinese individuals as a sanction against China's militarization activities in the South China Sea. In this announcement, a high-level official of the Department of State mentioned that this sanction was only the beginning of imposing many other means against China's malign activities in the South China Sea. On the same day, the United States Department of Commerce announced that it had added 24 Chinese firms to the Entity List for the reasons that they had supported the PLA constructing artificial islands and conducting militarizing activities in the South China Sea. Since the inauguration of the Biden administration, the United States has continued to show its consistent deterrence stance against China. For example, U.S. Secretary of State Blinken stated that the United States would reject China's claims about maritime interests in the South China Sea, and stand up together with Southeast Asian countries facing China's pressure. In July 2021, to mark the fifth anniversary of the arbitration award between the Philippines and China, Secretary Blinken issued a statement calling on

China to abide by its obligations under international law, reiterating that any attack on Philippine forces in the South China Sea would invoke U.S. mutual defense commitments under the U.S.-Philippines Mutual Defense Treaty. In August of the same year, the UN Security Council held an online meeting on maritime security, in which Secretary Blinken expressed concern that the rule of law in the South China Sea was under serious threat. However, China responded by saying that the United States was the greatest threat to peace and stability in the South China Sea, deepening the conflict.

Additionally, the United States has sought to enhance military efforts in the South China Sea. It has frequently conducted the Freedom of Navigation Operations, carried out joint exercises in July 2020 by deploying two Carrier Strike Groups for the first time since 2014, and even after President Biden took office, in February 2021, once again conducted similar exercises several times. The United States has also conducted bilateral exercises with Japan, the United Kingdom, Australia, the Netherlands, Canada, Singapore, and other partner countries. Responding to these American efforts, China has criticized the United States for hindering the peace and stability of the region.

Going forward, while forming free and open order based on the rule of law is important in the South China Sea, the military tensions may rise. Japan, which promotes the vision of a "Free and Open Indo-Pacific" with the United States, will have to pay great attention to the situation.

3 Taiwan

China upholds the principle that Taiwan is a part of China and that the Taiwan issue is a domestic one. China maintains that the "One China" principle is the underlying premise and foundation for dialogue between China and Taiwan. China has also strongly opposed to any foreign intervention in the unification of China as well as any move towards the independence of Taiwan and has repeatedly stated that it has not renounced the use of force. "The Anti-Secession Law," enacted in March 2005, clearly lays out China's policy of not renouncing the use of force, providing that in the event that possibilities for a peaceful reunification should be completely exhausted, the state shall employ

⁷ ASIA MARITIME TRANSPARENCY INITIATIVE DECEMBER 17, 2021

Column

Recent international affairs over Taiwan

China and Taiwan have continued to confront each other across the Taiwan Strait since the government of the Chinese Nationalist Party, or Kuomintang (KMT), retreated to Taiwan in 1949. While military tensions, known as Taiwan Strait Crises, have been heightened several times between China and Taiwan until present, these tensions have not resulted in an all-out armed clash. However, after the Tsai Ing-wen administration led by the Democratic Progressive Party (DPP), which is said to aspire to building an equal relationship with China, was inaugurated in Taiwan in 2016, China took its efforts a step further to increase pressure on Taiwan in a myriad of ways. Regarding China-Taiwan relations, it can be said that tensions are now rising between the Xi Jinping leadership, which is demonstrating its willingness to use military force in achieving Taiwanese unification, and its opposition: the Tsai Ing-wen administration and the United States, which supports Taiwan in accordance with the Taiwan Relations Act (TRA) and similar.

Amid the increasing tensions surrounding Taiwan, not only the United States but also the international community, especially European countries, have expressed its interest and concern in respect of the peace and stability of the Taiwan Strait again and again, and some have even demonstrated an active involvement in the issues over Taiwan. For example, in the European Union (EU), the European Parliament adopted a document related to strengthening its relationship with Taiwan in October 2021. A delegation of European Parliament members also visited Taiwan in November of the same year and reportedly discussed cooperating in measures against disinformation. In addition, Lithuania, one of the Baltic states, made a statement in August 2021 that it would pursue mutually beneficial ties with Taiwan in accordance with the principle of "One China." Lithuania also granted permission for establishing the Taiwanese Representative Office, a local government branch bearing the word "Taiwan," in November of the same year, showing its intention to place importance on its relations with Taiwan. From a security perspective, U.K., Canadian, and U.S. warships passed through the Taiwan Strait in 2021, and in November that year, the Australian Defense Minister stated that it would be inconceivable for Australia not to join the United States should Washington take action to defend Taiwan.

In response to these developments, China has shown strong opposition from both its rhetoric and military activities. In June 2021, a spokesperson for China's Ministry of Foreign Affairs strongly opposed the G7 Summit Leaders' Declaration, which emphasized the importance of peace and stability on the Taiwan Strait, claiming that administrative affairs concerning Taiwan are domestic matters fully under the purview of China, and that interference from any outside

forces would not be accepted. In addition, with regard to Lithuania setting up the Taiwanese Representative Office, the Foreign Minister of China expressed China's position of firm opposition to any acts involving "Two Chinas" or "One China, One Taiwan." Furthermore, according to announcements by Taiwan's Ministry of National Defense, Chinese military aircraft have frequently been entering airspace southwest of Taiwan since September 2020, and a total of approximately 970 Chinese aircraft entered this airspace in 2021, which is more than double the number in 2020. Chinese media has declared that one of the purposes of these flights was to resolutely strike back against frequent provocations by external forces. In addition, China has disclosed that it has carried out aircraft landing training in Fujian Province, which faces Taiwan across the Taiwan Strait. The country has also been increasing military pressure on Taiwan, announcing in August 2021 that the Eastern Theater had carried out field training including joint fire assault in waters and airspaces around the areas southeast and southwest of the main island of Taiwan.

Taiwan is an incredibly vital partner and an important friend to Japan. It shares with us the fundamental values of freedom, democracy, basic human rights, and the rule of law. Located in close proximity to Japan's Nansei Islands in the south, Taiwan lies merely 110 kilometers or so from the island of Yonaguni at the westernmost tip of Japan. In addition, Taiwan is located at the point where the South China Sea, the Bashi Channel, and the East China Sea meet, and opens out on an important sea lane for Japan. Therefore, stabilizing the situation surrounding Taiwan is important not only for Japan's security, but also for the stability of the international community. Japan has always taken the unwavering position that it hopes the issues over Taiwan will be settled peacefully through dialogue. We must continue to pay close attention to any relevant trends closely.



President Tsai Ing-wen meets
with visiting EU Parliament delegation
[Website of the Ministry of Foreign Affairs of Taiwan]



F-16V (upgraded from A/B variant)
fighter sold to Taiwan by the U.S.
[Website of the Ministry of National Defense of Taiwan]

nonpeaceful means and other necessary measures to protect China's sovereignty and territorial integrity.

On the other hand, conventionally, the United States has been promoting its policy on Taiwan based on the Taiwan Relations Act, the U.S.-China Joint Communique, and six assurances, and does not intend to change its approach to the "One China" principle. However, since the former Trump administration, the U.S. government has been expressing the stance to deepening its involvement in the situation surrounding Taiwan. In the Indo-Pacific Strategy Report (IPSR) of the U.S. Department of Defense released in June 2019, the intention of the United States to pursue a strong partnership with Taiwan is mentioned. The United States, in the U.S. Strategic Framework for the Indo-Pacific, which was released by the White House in January 2021, states that it enables "Taiwan to develop an effective asymmetric defense strategy," while also aiming for the United States to be capable of "defending the first-island-chain nations, including Taiwan." In addition, in April of the same year, the United States issued "New Guidelines" on promoting interactions with Taiwanese authorities, indicating its stance on continuing to promote U.S. engagement with Taiwan even after the Biden administration.

The Biden administration has positioned China as "the most serious competitor" challenging U.S. prosperity, security, and democratic values, and has made clear its diplomatic stance to contain China through cooperation with allies and partner countries on issues concerning Taiwan and other matters. For example, since the Biden administration, the importance of "peace and stability across the Taiwan Strait" has been repeatedly mentioned at international meetings such as

the Japan-U.S. summit meetings, the G7 Summit, and the U.S.-EU summit meetings. Furthermore, the Biden administration has been promoting efforts to enhance Taiwan's international standing, including calling on UN member states to support Taiwan's meaningful participation in the UN system.

In addition, the U.S. has decided to implement arms sales to Taiwan under the Taiwan Relations Act. Arms sales took place 11 times under the Trump administration, and the Biden administration has continued its involvement, with the first arms sale taking place in August 2021. In 2019, the president notified Congress of its plan to sell such weapons as 66 F-16V fighters to Taiwan, the first U.S. fighter sales to Taiwan in the 27 years since 1992. From October to November 2020, the United States also notified Congress in swift succession of the plan to sell the High Mobility Artillery Rocket System (HIMARS), long range air-to-surface missiles, and surface-to-ship missiles. The National Defense Authorization Act for FY2022, which was passed in December 2021, also clearly states that the United States will continue to provide defense equipment to Taiwan. In addition, the United States has frequently sent its vessels to pass through the Taiwan Strait under the Biden administration as well. Moreover, in an interview with the U.S. media in October 2021, President Tsai Ing-wen acknowledged that U.S. military was visiting Taiwan for training purposes.

With regard to the United States, not only the government but also Congress has indicated its intention to further enhance support for Taiwan. The Asia Reassurance Initiative Act, passed in December 2018, stipulates regular transfers of defense articles to Taiwan and encouragement of the travel of high-level U.S. officials to Taiwan. Similarly, the Taiwan Allies International Protection and Enhancement Initiative (TAIPEI) Act, enacted in March 2020, stipulates the promotion of regular transfers of defense articles to Taiwan. The TAIPEI Act also includes the encouragement for the U.S. government to provide support for "altering its economic, security, and diplomatic engagement with nations that take serious or significant actions to undermine the security or prosperity of Taiwan" and for advocating Taiwan's participation and membership in international organizations. In June and November 2021, and in March and April 2022, U.S. congressional delegations visited Taiwan, met with President Tsai and others, and exchanged views on

strengthening U.S.-Taiwan relations and other matters. Furthermore, the National Defense Authorization Act for FY2022, passed by the U.S. Congress in December of the same year, clearly stated a stance of strengthening U.S. support for maintaining Taiwan's self-defense capabilities, and included an invitation to Taiwan to participate in the 2022 RIMPAC and support for improvement of Taiwan's asymmetric military capabilities.

In response, China has further increased its military activities in the vicinity of Taiwan. In particular, according to Taiwan's Ministry of National Defense, there has been an increase in Chinese military aircraft entering Taiwan's southwest airspace since September 2020. According to announcements by Taiwan's Ministry of National Defense, a total of approximately 380 Chinese military aircraft entered Taiwan's southwestern airspace during 2020, and a total of over 970 aircraft entered the southwestern airspace in 2021. In the four-day period from October 1 to 4, the same year, a total of 149 Chinese military aircraft, including fighters and bombers, entered Taiwan's southwestern airspace. Furthermore, since 2021, China has been diversifying its assets entering this airspace by dispatching conventional fighter and bomber aircraft as well as attack helicopters, aerial refueling tankers, and other aircraft. Through a series of activities, China seems to be seeking to put military pressure on Taiwan and the international community, conduct a war of attrition against Taiwan on a routine basis, and improve its actual combat capabilities in addition to training, intelligence gathering, and surveillance.

In addition, on August 17, the same year, China's Eastern Theater Command announced that it had

conducted an operations drills, including joint live-fire drills, in the sea and airspace surrounding the southwest and southeast of Taiwan Island, explaining that the purpose of the drills was "solemn response to the interference of foreign forces and the provocation of 'Taiwan independence' secessionists." It has been pointed out that this was an activity to contain the United States and Taiwan in conjunction with the announcement date of the "August 17 Communiqué,"⁸ which was agreed upon between the United States and China in 1982.

In this way, in recent years, cases have emerged in which the Chinese side sends a message that it is conducting landing and power projection exercises in the sea and airspace around Taiwan as a form of containing Taiwan and the international community. Due to these increasing military activities by China in the vicinity of Taiwan and the response from the Taiwanese side to the situation, the possibility of military tension between China and Taiwan to become further heightened cannot be denied.

While the Biden administration is clarifying its stance of supporting Taiwan in the military-related area, in the same way as the former Trump administration, it is deemed unlikely that China, which position Taiwan as its core interests, will show a compromising attitude towards the U.S. stance. It is viewed that the U.S.-China conflict over Taiwan may become more apparent. Stabilizing the situation surrounding Taiwan is important not only for Japan's security but also for the stability of the international community. Therefore, it is necessary that we pay close attention to the situation with a sense of crisis more than ever before.

3 Military Capabilities of Taiwan and Military Balance between China and Taiwan

1 Relations with China

Taiwanese President Tsai Ing-wen from the Democratic Progressive Party, who took office in 2016, has noted that she has never accepted the "1992 Consensus" that

China claims as embodying the "One-China" principle.⁹ In response, China has criticized the Democratic Progressive Party for destroying the political foundation of the peaceful development of cross-strait relations by rejecting the "1992 Consensus" unilaterally, emphasizing

⁸ A document jointly issued by the U.S. and Chinese governments in 1982 stating that the U.S. government would not carry out a long-term policy of arms sales to Taiwan, based on the position that the United States recognized the Government of the People's Republic of China as the sole legal government of China and acknowledged China's position that Taiwan is part of China.

⁹ The "1992 Consensus" refers to what represents a common understanding reached between Chinese and Taiwanese authorities in 1992 on the "One-China" principle. The CCP and Taiwan's Kuomintang Nationalist Party (Taiwan's ruling party at the time), viewed as parties to the consensus, have reportedly differed over the interpretation of the consensus. In addition, Taiwan's Democratic Progressive Party has clarified that it has not accepted the "1992 Consensus."

that the maintenance of the “1992 Consensus” would be the unshakable foundation for peace and stability of cross-Straits relations.

In a January 2019 speech at an event commemorating the 40th anniversary of China’s “Message to Compatriots in Taiwan,” General Secretary Xi Jinping advocated a five-point proposal for managing relations with Taiwan, stating “the specific form of the ‘one country, two systems’ model in Taiwan will give full consideration to the situation in Taiwan.” In her immediate response to the speech, President Tsai issued a statement firmly rejecting the “one country, two systems” model and called for negotiations between “government-authorized agencies.” After winning re-election with the highest ever number of votes in a Taiwanese presidential election in January 2020, President Tsai told a press conference the election results represented the value of Taiwanese people and rejected the “one country, two systems” model. In a manner to check the Taiwanese side, China noted that regardless of how the Taiwanese situation changed, there would be no change to the basic fact that there is only one China in the world, with Taiwan being a part of China. In October 2021, at the ceremony commemorating the 110th anniversary of the Xinhai Revolution, President Xi again sought to check the Tsai administration, stating, “National reunification by peaceful means best serves the interests of the Chinese nation as a whole,” and “Those who... seek to split the country will come to no good end; they will be disdained by the people and condemned by history.” By contrast, in her speech for the Double Tenth National Day Celebration commemorating the Xinhai Revolution that month, President Tsai said, “We call for maintaining the status quo, and we will do our utmost to prevent the status quo from being unilaterally altered,” stating that “the Republic of China and the People’s Republic of China should not be subordinate to each other,” and emphasized the stance that cross-strait conflicts should be resolved through dialogue between the two sides on equal footing.

In regard to relations between the international community and Taiwan, since around the inauguration of President Tsai for her first term, Taiwanese delegates were refused attendance at or had their invitations deferred from meetings held by international organizations, including ones in which they had participated up to

that point.¹⁰ As Nicaragua severed diplomatic relations with Taiwan and established such relations with China in December 2021, the number of countries having diplomatic relations with Taiwan declined to 14 from 22 in May 2016, when President Tsai took office. Taiwan is strongly protesting these actions, claiming them to be “actions taken by China that compress the international space of Taiwan.”

2 Taiwan’s Military Power and Defense Strategy

With regard to Taiwan’s military power, at present, ground forces, including the Navy Marine Corps, have a total of approximately 104,000 personnel. In regard to the organization of the army, it is planned to abolish the traditional Army Corps and reorganize them into the first to fifth Theaters of Operations. The Taiwanese Minister of National Defense explained the reason for this as being advantageous for the execution of joint operations during conflict or peacetime. In addition, it is assessed that approximately 1.66 million reserve personnel of the air, naval, and ground forces would be available in case of war. In January 2022, the All-out Defense Mobilization Agency was established to integrate the reserve forces and public and private organizations involved in wartime mobilization to optimize the efficiency of the mobilization system in the event of an emergency. Regarding naval capabilities, in addition to Kidd-class destroyers which were imported from the United States, Taiwan possesses the indigenously built “Tuo Chiang” stealth corvette, among other vessels. Taiwan is currently promoting a national shipbuilding program to independently build its own military vessels, which includes plans to build 11 “Tuo Chiang”-class corvettes by 2026 and about eight indigenously built submarines by around 2023. Regarding air capabilities, Taiwan possesses F-16 fighters (A/B and F-16V upgraded from A/B), Mirage 2000 fighters, Ching-kuo fighters, and other assets. In November 2021, Taiwan’s first unit composed of F-16V fighters modified from F-16A/B fighters was established at Chiayi Air Base, and the deployment of fighters capable of carrying longer-range missiles is being strengthened, including the new F-16V fighters scheduled to be introduced from the United States in 2022.

¹⁰ According to the website of the Ministry of Foreign Affairs of Taiwan on September 24, 2019.

Taiwan adopted conscription in 1951, but it has been switching to a volunteer system mainly to improve the expertise of its military personnel, and the last of the conscripts were enlisted by the end of 2018. However, the obligation to undergo four months of military training is being maintained and Taiwan's Ministry of Defense describes the Taiwanese system of military service as a dual-track mix of conscripts and volunteers.

Since China has consistently expressed its intention of not renouncing the use of force to Taiwan, the country may make a decision on military options such as air and maritime blockade, limited use of force, air and missile operations, and invasion of Taiwan. If that happens, it is deemed that China will deter or delay any potential U.S. interventions. According to Taiwan's analysis of the Chinese invasion process for Taiwan, in the initial phase, China will assemble its military forces on the Chinese coast under the guise of exercises and use "cognitive warfare" to cause panic among the Taiwanese people. China will then gather its naval vessels in the western Pacific to prevent foreign military intervention. In the second phase, under the strategy of transformation from exercises to war, the Rocket and Air Forces will launch ballistic and cruise missiles to attack Taiwan's key military facilities, while the Strategic Support Force carry out cyber attacks on Taiwan's key military systems. In the third phase, after gaining sea and air superiority, landing operations by amphibious assault ships, transport helicopters, and more will be carried out, thus achieving total control of Taiwan before foreign forces intervene.

In response to such developments by China, under President Tsai, Taiwan has formulated a defense strategy to prevent an invasion by China at the furthest distance possible through a multilayered defense posture combining major equipment such as fighter aircraft and naval vessels with asymmetric capabilities, known as "resolute defense and multi-domain deterrence." The strategy raises a defense concept comprising "force protection" to contain the initial destruction caused by the enemy and ensure integrity of military power through mobility, concealment, dispersion, deception, camouflage, and other tactics, "decisive battle in littoral zone" to gain a partial superiority within the coverage of their air assets and shore-based firepower

and employ integrated capabilities of three services to destroy enemies' vessels at sea, and "destruction of enemy at landing beach" to destruct the enemy at berthing, landing beach, and coastal areas by integrating forces, firepower, and prepositioned barriers of three services, and give them no places to set foot on.¹¹ This is believed to be aimed at exhausting the operational capabilities of the Chinese military and preventing or reducing the landing of Chinese troops in the face of the overwhelming gap in military strength between China and Taiwan, as well as delaying an invasion by the Chinese military and buying time until intervention by the U.S. military. It is believed that Taiwan plans to constrain any Chinese military invasion from a long distance by expanding the development and production of domestically produced asymmetric capabilities and long-range weapons, as well as introducing high-performance, long-range weapons from the United States, in order to successfully execute "resolute defense and multi-domain deterrence." Taiwan is currently strengthening its domestic development of sea and air capabilities, long-range missiles, and the like. In November 2021, a special budget bill for the expansion of sea and air capabilities was passed, and it was decided to invest 240 billion Taiwan dollars (approximately 950 billion yen) over five years for the acquisition of self-developed equipment. It has been pointed out that the domestically-produced equipment that Taiwan aims to strengthen includes the "Tuo Chiang"-class stealth corvette which is known as the "carrier killer," the "Chien Hsiang" anti-radar drone, and the "Hsiung Feng 2ER" long-range surface-to-surface missile. In addition to these, Taiwan has decided to acquire from the United States the "M142" (HIMARS) high mobility artillery rocket system, the "RGM-84L-4" (Harpoon) surface-to-ship missile system, and the "AGM-84H" (SLAM-ER) long-range air-to-surface missile.

In March 2021, Taiwan released the Quadrennial Defense Review (QDR), which is the fourth review since 2009. This report aims to present the national defense strategy and military power development policy for the next four years to contribute to strengthening the national defense. In the report, Taiwan assesses China's military threat and states that China is improving operational capabilities through landing exercises assuming an

¹¹ Note that the 2021 Quadrennial Defense Review (QDR) and the National Defense Report present the concept of force application, "denial operations: hostile embarking phase; striking operations: hostile seafaring phase; attacking operations: hostile disembarking phase, and total annihilation operations: hostile landing phase," it will inflict multi-domain interception blows and joint firepower strikes to sequentially weaken the enemy's operational capabilities and dismantle its offensives, obstruct its landing, and ultimately thwart its aggression.

invasion of Taiwan and the implementation of gray-zone strategies, while maintaining capabilities for the blockade of waters around the Taiwan Strait and Anti-Access/Area-Denial (A2/AD). Based on the evaluation, Taiwan intends to enhance its defense capabilities by enhancing long-range weapons and asymmetric forces and developing surveillance capabilities, while Taiwan utilizes new technologies such as big data analysis, and cooperates with the Navy and the Coast Guard Administration in order to deal with China's gray-zone situations.

In November 2021, a national defense report (the National Defense Report 2021) was released for the third time under the Tsai administration, presenting to the people the defense policy initiatives of the past two years. While maintaining the defense strategy of "resolute defense and multi-domain deterrence," the report continued on from the QDR to indicate China's strong wariness of China's gray zone tactics, including a new section on China's gray zone threats. The report recognizes China's gray zone tactics as a means of "seizing Taiwan without a fight." Specific examples raised of China's gray zone tactics include cyber attacks through information gathering, attacks on infrastructure and systems, and other means, and "cognitive warfare" to create disorder in Taiwan's society by manipulating and disturbing the public's mentality through the development of the "Three Warfares" (psychological warfare, public opinion warfare, and legal warfare) and disseminating disinformation via social media and other such means. In response to these threats from China, Taiwan has expanded its asymmetric capabilities and domestically produced weapons, purchased weapons from the United States, strengthened integrated training, enhanced cyber operations capabilities, enhanced literacy education on Chinese cognitive warfare, and strengthened its mobilization system through the establishment of the "All-out Defense Mobilization Agency."

In addition to this, Taiwan annually conducts the "Han Kuang" large-scale military exercise that simulates an invasion by Chinese forces. It is believed that the Taiwan military's defense strategy is verified through this series of drills. In the "Han Kuang" exercises in recent years, in addition to anti-landing and interception programs, drills are conducted with an awareness of anti-gray zone tactics, such as anti-cyber warfare and joint drills between the Navy and the Coast Guard Administration.

The "Han Kuang 37" exercise in 2021 is believed to have included anti-landing drills on the Kinmen Islands, Matsu Islands, and Penghu Islands simultaneously, as well as the deployment of a new type of surface-to-ship missile unit to eastern Taiwan to practice countering a Chinese military invasion from eastern Taiwan.

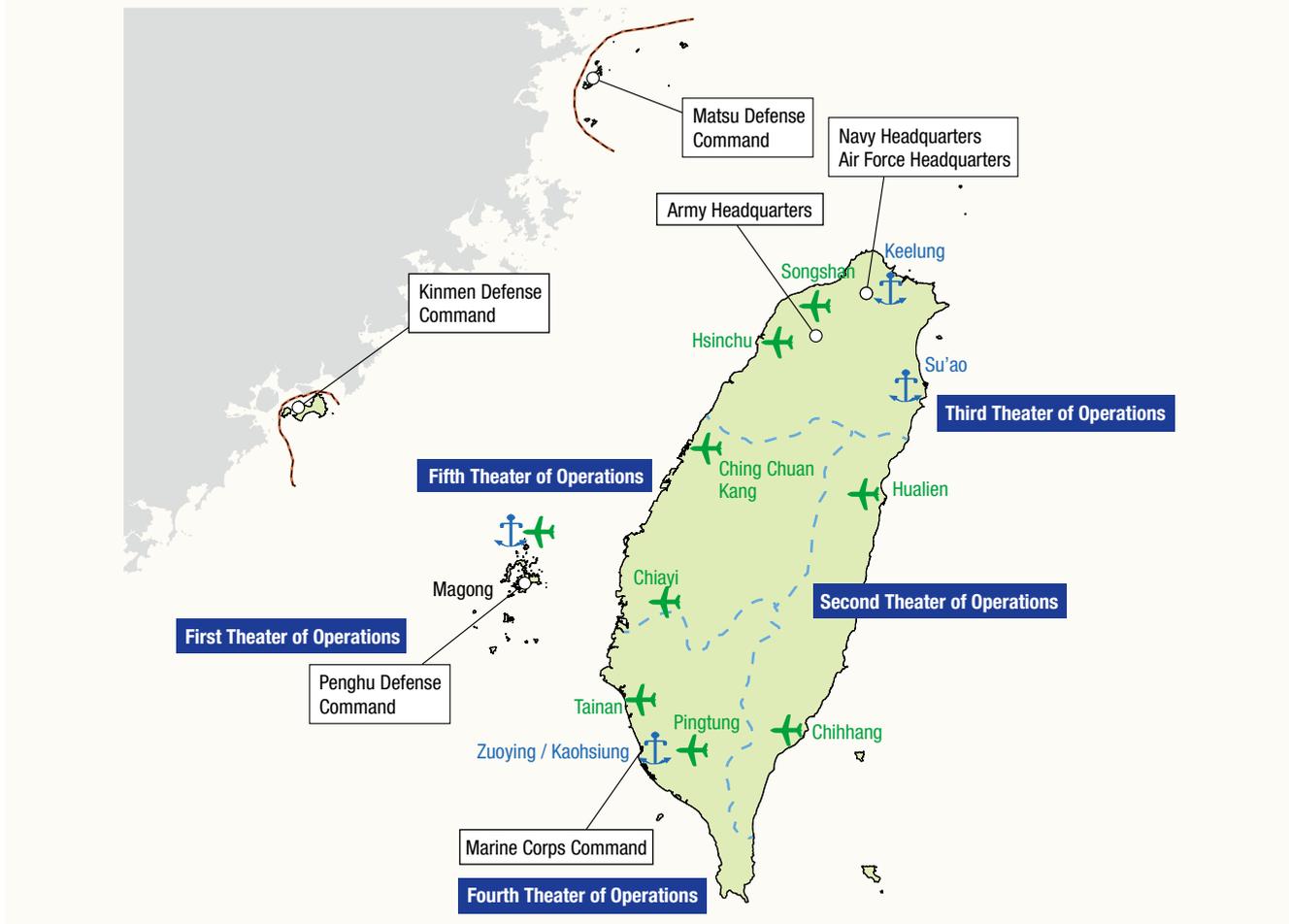
3 Military Balance between China and Taiwan

While China has continued to increase its defense budget by a significant margin, Taiwan's defense budget, at approximately 367.6 billion Taiwan dollars for FY2022, has remained almost unchanged for nearly 20 years. China's announced military budget in the same year totals approximately 1,450.4 billion yuan, roughly 17 times the amount of Taiwan's in terms of U.S. dollars based on exchange rates announced by the Taiwanese Central Bank. It is pointed out that China's actual defense expenditure has been larger than the published defense budget, indicating that the China-Taiwan defense expenditure gap could be greater. Amid this situation, President Tsai has ordered an increase in Taiwan's defense budget.

According to the "Military and Security Developments Involving the People's Republic of China" annual report for 2021 released by the U.S. DoD in November 2021, as the Chinese military's force for an invasion against Taiwan, the PLA has organized six combined-arms brigades capable of conducting amphibious operations, comprising four brigades in the Eastern Theater Command with Taiwan within its range of operations, and two brigades in the Southern Theater Command. The PLA aviation and air assault brigades would also play a role in the event of large-scale landing operations. The Navy is equipped with new attack submarines, surface combatants with anti-air capabilities, and fourth-generation naval aircraft to build a system to achieve maritime superiority within the First Island Chain as well as to deter third-party intervention. On the other hand, the acquisition of amphibious platform docks and landing helicopter assault ships is modest, and transport capabilities are expected to remain limited. The Air Force has acquired advanced aircraft to conduct air and ground attack operations. It is also considered to have a strong air defense network against attacks on key Chinese military installations and other facilities, and a high ISR capability to support military

Fig. I-3-3-1

Placement of Taiwan military



operations in the event of an advance into Taiwan. In addition to this, the Strategic Support Force would conduct cyber and psychological warfare in the event of a Taiwan contingency, and the Joint Logistic Support Force, newly formed in 2016, would be responsible for integrated logistical support missions.

In a report on China's military capabilities submitted to the Legislative Yuan, Taiwan's Ministry of National Defense stated that although China does not yet have a complete large-scale landing operation capability due to insufficient transport assets and logistical support systems, at the present stage it already possesses soft and hard kill capabilities such as electronic warfare attacks west of the first-island-chain. The report also stated that after China gains air, sea, and cyber superiority, the possibility of it conducting an integrated landing operation using a combination of regular amphibious ships and commercial cargo ships cannot be ruled out, and evaluated that "the threat to Taiwan is very great."

While the PLA proceeds to expand its missile, naval,

and air forces, the Taiwan military is struggling in the modernization of its equipment.

The military capabilities of China and Taiwan are generally characterized as follows:

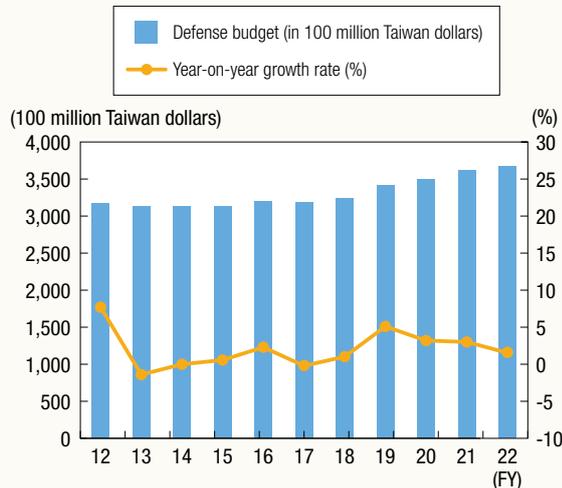
- (1) Regarding ground forces, while China possesses an overwhelming number of troops, its capability of landing and invading the island of Taiwan is limited at present. In recent years, however, China has been steadily improving its landing and invasion capabilities by building and commissioning large amphibious ships.
- (2) Regarding naval and air forces, China, which overwhelms Taiwan in terms of quantity, has also been rapidly strengthening its naval and air forces in recent years in terms of quality, where Taiwan used to have superiority over China. In this situation, Taiwan focuses on developing asymmetric forces including stealth corvettes.
- (3) Regarding missile strike capabilities, it has been

Fig. I-3-3-2 Comparison of China and Taiwan Military Forces

		China	Taiwan
Total military forces		Approx. 2.04 million troops	Approx. 0.17 million troops
Ground forces	Ground troops	Approx. 0.97 million troops	Approx. 100,000 troops
	Tanks, etc.	Type-99/A, Type-96/A, Type-88A/B and others Approx. 6,200 vehicles	M-60A, M-48A/H and others Approx. 750 vehicles
Maritime forces	Warships	Approx. 750 vessels Approx. 2,240,000 tons	Approx. 250 vessels Approx. 205,000 tons
	Aircraft carriers, destroyers, and frigates	Approx. 90 vessels	Approx. 30 vessels
	Submarines	Approx. 70 vessels	4 vessels
	Marines	Approx. 40,000 troops	Approx. 10,000 troops
Air forces	Combat aircraft	Approx. 3,030 aircraft	Approx. 520 aircraft
	Modern fighter aircraft	J-10 × 548 Su-27/J-11 × 329 Su-30 × 97 Su-35 × 24 J-15 × 50 J-16 × 172 J-20 × 50 (Fourth and fifth generation fighters (total): 1,270)	Mirage2000 × 55 F-16 (A/B) × 77 F-16 (modified V) × 64 Ching-kuo × 127 (Fourth generation fighters (total): 323)
Reference	Population	Approx. 1.406 billion	Approx. 23 million
	Term of service	2 years	The last conscripts were enlisted before the end of 2018. However, the obligation to undergo four months of military training is being maintained for those born in or after 1994.

Note: Data from "The Military Balance 2022," etc.

Fig. I-3-3-3 Changes in Taiwan's Ministry of National Defense Budget



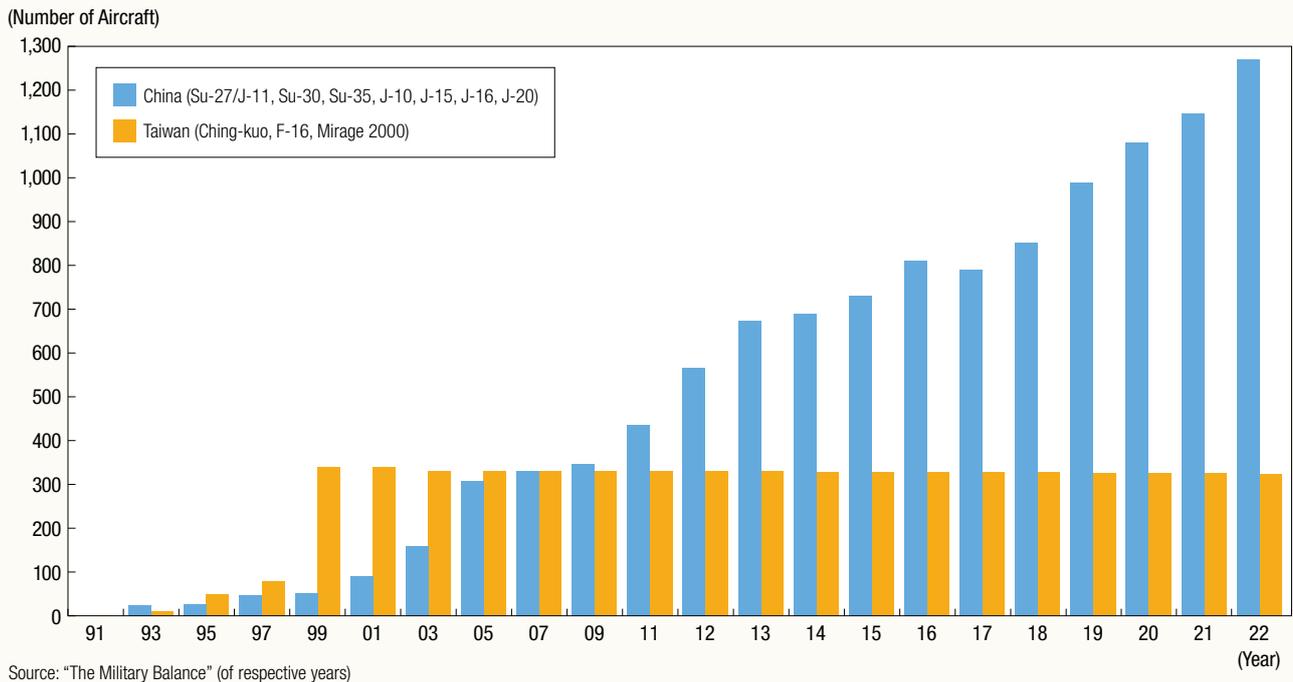
Source: the website of the Directorate-General of Budget, Accounting and Statistics, Executive Yuan

pointed out that Taiwan is developing the “Hsiung Feng 2ER” surface-to-surface missile, which is said to have a range of 1,200 km, and is considered to be aiming to introduce the “AGM-158” long-range air-to-surface missile from the United States. In addition, Taiwan has been strengthening its ballistic missile defense, upgrading the PAC-2 to the PAC-3 and introducing the PAC-3 from the United States. However, China possesses as many as 1,000 short-range ballistic missiles and other assets with ranges covering Taiwan. Taiwan is deemed to lack effective countermeasures.

Comparison of military capabilities should be made based not only on the troop strength and the performance and quantity of equipment but also on various other factors such as the purpose and aspects of assumed military operations, operational arrangements, the skill level of personnel, and logistics. Nevertheless, the overall military balance between China and Taiwan is tilting to China’s favor, and the gap appears to be growing year by year. Going forward, attention needs to be paid to trends such as the strengthening of Chinese and Taiwanese forces, the sale of weapons

Fig. I-3-3-4

Changes in the Number of Modern Fighter Aircraft of China and Taiwan



to Taiwan by the United States, and Taiwan's own development of its main military equipment. As the possibility of a Chinese invasion of Taiwan has been pointed out following the February 2022 Russia's aggression against Ukraine, Taiwanese President Tsai Ing-wen says that the situations surrounding Ukraine and Taiwan are fundamentally different and has given instructions about raising their early warning of military developments around the Taiwan Strait and strengthening their response to "cognitive warfare" by "external forces" against Taiwan. Tsai emphasized the importance of national defense by the unity of the whole Taiwanese people and ordered the Ministry of National Defense to continue to conduct a rolling review of the implementation and progress of the new reservist training system whose education and call-up period was extended experimentally in 2022. In addition, Taiwan Defense Minister Chiu Kuo-cheng announced following the Russia's aggression against Ukraine that he would incorporate the Ukrainian experience into part of his asymmetrical warfare plan continuously strengthening asymmetrical forces. Furthermore, Taiwan's Ministry of National Defense is currently reportedly considering extending its four-month military training period, which has been compulsory since the transition to a volunteer system of military service. In this way, Taiwan has been working to further bolster its own defense endeavors

since the Russia's aggression against Ukraine.

China is engaging in unilateral and coercive attempts to change the status quo, and has been expanding and intensifying its military activities in maritime and aerial domains, notably in the East China Sea. It is also exerting increased pressure on Taiwan in various ways.

Recognizing that China's attempts to change the status quo by coercion are a challenge not only for the Indo-Pacific region but one common to the entire world, Japan, in cooperation with its ally, the U.S., friendly nations, and the international community, will pay close attention to the relevant situation with a sense of crisis more than ever before.



Fig. I-3-3-1 (Placement of Taiwan military)

Fig. I-3-3-2 (Comparison of China and Taiwan Military Forces)

Fig. I-3-3-3 (Changes in Taiwan's Ministry of National Defense Budget)

Fig. I-3-3-4 (Changes in the Number of Modern Fighter Aircraft of China and Taiwan)

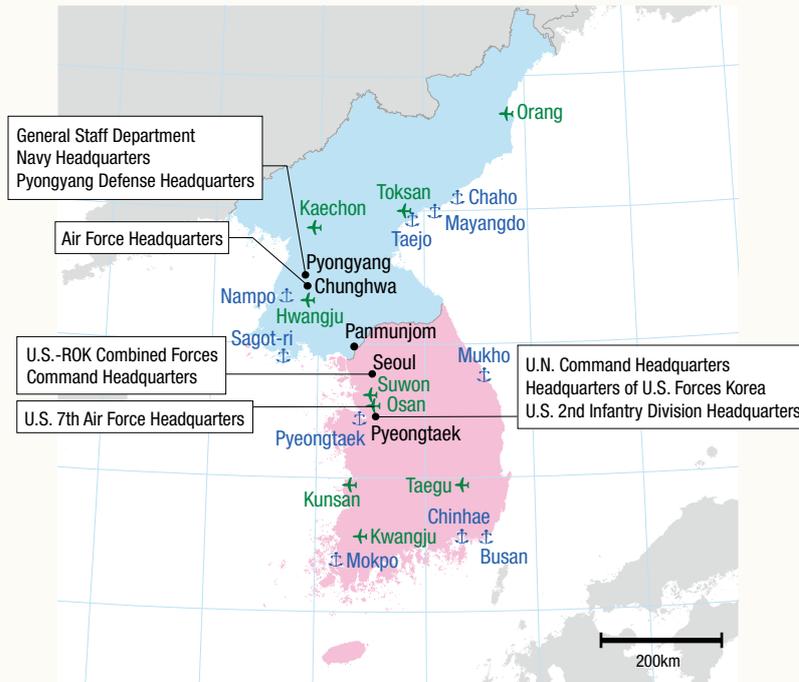
Section 4 Korean Peninsula

On the Korean Peninsula, people of the same ethnicity have been divided into two-north and south-for more than half a century. Even today, the ROK and North Korea pit their ground forces of about 1.5 million against each other across the demilitarized zone (DMZ).

Peace and stability on the Korean Peninsula under such security environment is an extremely important challenge not only to Japan but also to the entire region of East Asia.

 Fig. I-3-4-1 (Military Confrontation on the Korean Peninsula)

Fig. I-3-4-1 Military Confrontation on the Korean Peninsula



		North Korea	ROK	U.S. Forces Korea
Total armed forces		Approx. 1.28 million personnel	Approx. 560,000 personnel	Approx. 30,000 personnel
Army	Ground troops	Approx. 1.1 million personnel	Approx. 420,000 personnel	Approx. 20,000 personnel
	Tanks	T-62, T-54/55, etc. Approx. 3,500	M-48, K-1, T-80, etc. Approx. 2,070	M-1A2SEPV2
Navy	Naval vessels	Approx. 800 110,000 tons	Approx. 220 280,000 tons	Supporting corps only
	Destroyers		12	
	Frigates	6	12	
	Submarines	25	18	
	Marines		Approx. 29,000 personnel	
Air Force	Combat aircraft	Approx. 550	Approx. 660	Approx. 80
	Third, fourth and fifth generation fighters	MiG-23 × 56 MiG-29 × 18	F-4 × 30 F-15 × 59 F-16 × 162 F-35 × 36	F-16 × 60
Reference	Population	Approx. 25.83 million	Approx. 51.72 million	
	Term of service	Men: 10 years Women: 7 years	Army: 18 months Navy: 20 months Air Force: 21 months	

Note: Data from "The Military Balance 2022," etc.

1 North Korea

1 General Situation

In March 2013, Chairman Kim Jong-un¹ adopted the “Byungjin line” policy of simultaneous economic and nuclear development. At the 7th Congress of the Korean Workers’ Party (KWP) in May 2016, he made it clear that he would uphold the “Byungjin line” as well as the “Songun politics.”² Between 2016 and 2017, North Korea pushed ahead with three nuclear tests and as many as 40 ballistic missile launches. The international community responded by imposing sanctions under relevant UN Security Council resolutions, while Japan and the United States were among those who strengthened their own sanctions against North Korea.

On the other hand, in April 2018, Chairman Kim declared that the “Byungjin line” had been successfully carried out as the development of the state nuclear force had been completed. He also announced that the “new strategic line” was that the whole of the party and the whole of the state would fully concentrate efforts on the construction of a socialist economy. In addition, North Korea decided to discontinue “nuclear test and inter-continental ballistic rocket test-fire,” announcing in May 2018 that the nuclear test ground had been blown up. During the U.S.-North Korea summit meeting that June, Chairman Kim expressed the intention to work towards denuclearization of the Korean Peninsula.

However, the February 2019 U.S.-North Korea summit meeting ended without the two sides reaching an agreement. In December of the same year, Chairman Kim announced the intention to continue developing strategic weapons until the United States rolled back its hostile policy towards North Korea. In addition, at the 8th Congress of the KWP in January 2021, North Korea showed its hostile stance towards the United States. At the same time, it showed its stance of continuing development of its nuclear and missile capabilities, including to “further strengthen the nuclear war deterrent while doing our best to build up the most powerful military strength.”

In another speech in October of the same year, Chairman Kim stated that “our arch-enemy is the war itself” and emphasized that the possession of military capabilities constituted the “self-defensive and mandatory right” of a sovereign nation, and that strengthening military capabilities was the Party’s “priority policy.” Since February 2022, North Korea has resumed launches of intercontinental ballistic missile (ICBM)-class ballistic missiles. Following the March 24 launch in particular, North Korea reiterated its intent to enhance its related technologies, announcing that it will continue to strengthen its nuclear capabilities while widely publicizing the launch of a new type of ICBM-class ballistic missile. These remarks indicate that North Korea will continue to make efforts to maintain and enhance its military capabilities and combat readiness, including its nuclear and missile capabilities. According to the official announcement at the Supreme People’s Assembly in February 2022, the proportion of the defense budget in the FY2022 budget of North Korea was 15.9%. However, it is believed that this represents only a fraction of the real defense expenditures.

North Korea has continued to promote the development of weapons of mass destruction (WMDs) and ballistic missiles and the enhancement of its operation capabilities, including by conducting six nuclear tests in the past and repeatedly launching ballistic missiles in recent years. Technologically, North Korea is considered to have already miniaturized nuclear weapons to fit ballistic missile warheads and possess the capability to launch an attack on Japan with a ballistic missile fitted with a nuclear warhead. Furthermore, in January 2021, Chairman Kim mentioned the development of “ultra-modern tactical nuclear weapons, including intermediate-range cruise missiles.” In September of the same year and in January 2022, North Korea announced that it had succeeded in conducting test launches of long-range cruise missiles.³ Moreover, North Korea is assessed to possess large-scale cyber units as part of its asymmetric military capabilities, engaging in theft of military secrets and developing capabilities to

¹ As of 2013, Kim Jong-un held the position of the First Chairman of the National Defense Commission. At the Supreme People’s Assembly in June 2016, the National Defense Commission was renamed the State Affairs Commission, and Kim Jong-un assumed the position of Chairman of the State Affairs Commission. Reflecting this change, “Chairman of the State Affairs Commission” is used for the title of Kim Jong-un throughout this white paper.

² In a written decision of the 7th Congress of the KWP, “Report on the Work of the KWP Central Committee” (May 8, 2016), it has been defined as a basic form of socialist politics that leads the great undertaking of socialism to victory by giving priority to the military forces in all activities under the principle of military first, and strengthening and relying on the actors in the revolution with the Korean People’s Army (KPA) acting as the central and main force.

³ On September 13, 2021, North Korea announced that it successfully test-fired newly-developed long-range cruise missiles on September 11 and 12, and that the missiles had flown for about two hours and hit a target 1,500 km away. In addition, on January 28, 2022, North Korea announced that on January 25, 2022, it launched a long-range cruise missile, believed to be of a different type from the aforementioned missile, which hit a target 1,800 km away.

attack critical infrastructure of foreign countries. It also retains largescale special operation forces. In addition, North Korea has repeatedly used provocative rhetoric and behavior against relevant countries, including Japan.

Such military activities in North Korea pose grave and imminent threats to Japan's security and significantly undermine the peace and security of the region and the international community. Since the beginning of 2022 in particular, North Korea has repeatedly launched missiles at an extremely high frequency and in new ways and made successive reference to strengthening its nuclear capabilities, still maintaining its stance of turning its back on the international community to continue developing nuclear and ballistic missiles. Not only that, there is also the possibility it will engage in further provocative action, the trend has been growing in recent years.

Needless to say, North Korea's possession of nuclear weapons cannot be accepted. At the same time, sufficient attention needs to be paid to the development and deployment of ballistic missiles and the like, the military confrontation on the Korean Peninsula, and the proliferation of WMDs and missiles by North Korea.

Partly because of North Korea's closed regime, it is difficult to accurately capture the details and intentions of its behavior. However, it is necessary for Japan to pay utmost attention to them. As for North Korea's abduction of Japanese nationals, utmost efforts continue to be made to realize the return of all abductees to Japan as quickly as possible by close cooperation with related countries, including the United States.

2 Military Posture

(1) General Situation

North Korea has been building up its military capabilities in accordance with the Four Military Guidelines (extensive training for all soldiers, modernizing all military forces, arming the entire population, and fortifying the entire "country").⁴

There is significant qualitative disparity between North Korea's conventional forces and those of the ROK's military and U.S. Forces Korea, and most of North Korea's equipment is outdated. Contributory factors to this situation include the reduction in military assistance from the former Soviet bloc due to the collapse of the Cold War structure,

limitations on defense spending caused by the sluggish economy, and the modernization of the ROK's defense capability. North Korea's military forces are comprised mainly of ground forces, with a total troop strength of roughly 1.28 million personnel. It still maintains a large-scale military force, including artillery units deployed near the DMZ.

Furthermore, in order to maintain its regime, North Korea is believed to be planning to build its own nuclear deterrence and improve its capacity to deal with conflicts with U.S. and ROK forces by concentrating on building up its WMD and ballistic missile arsenal, etc. In particular, since May 2019, North Korea has repeatedly launched new types of short-range ballistic missiles (SRBMs) capable of flying at low altitudes with irregular trajectories and other missiles, rapidly improving missile-related technologies and operational capabilities, and diversifying their launch modes to include rail-launched and submarine-launched types. In this way, North Korea has been striving to expand more actual warfighting-oriented SRBM capabilities. In recent years, North Korea has also sought to operationalize its long-range cruise missiles, and on April 17, 2022, announced that it had launched a "new-type tactical guided weapon," claiming it strengthens "the efficiency in the operation of tactical nukes of the DPRK." The background for North Korea's series of development and launches may be that, in addition to acquiring nuclear deterrent capabilities through the possession of nuclear weapons and long-range ballistic missiles for the maintenance and survival of the regime, North Korea aims to acquire the means to be able to respond in armed conflict that could occur between itself and the United States and ROK forces in which conventional forces or tactical nuclear weapons are used.⁵ North Korea has repeatedly disclosed that a plan called the "five-year plan for the development of the defence science and the weapon system" was presented at the Congress of the KWP in January 2021. It is expected to continue to focus efforts on the development of various weapons in line with this plan.

North Korea also has forces such as a large-scale special operations force that can conduct various operations including collecting intelligence and sabotage. Moreover, North Korea seems to have many underground military related installations across its territory.

⁴ The Four Military Guidelines were adopted at the 5th plenary meeting of the 4th KWP Central Committee in 1962.

⁵ For example, at the 8th Congress of the KWP in January 2021, Chairman Kim stated that North Korea would "develop tactical nuclear weapons to be used as various means according to the purposes of operational duty and targets of strike in modern warfare" and "thoroughly contain, control and handle on our own initiative various military threats on the Korean peninsula".

(2) Military Capabilities

The North Korean Army comprises about 1.10 million personnel, and roughly two-thirds of them seem to be deployed along the DMZ. The main body of the army is infantry, but the army also maintains armored forces including at least 3,500 tanks and artillery. North Korea is believed to deploy long-range artillery along the DMZ, such as 240 mm multiple rocket launchers and 170 mm self-propelled artillery guns, which can reach cities and bases in the northern part of the ROK including Seoul.

The Navy has about 800 ships with a total displacement of approximately 110,000 tons and is chiefly comprised of small naval vessels such as high-speed missile craft. Also, it has about 20 of the former model Romeo-class submarines, about 40 midget submarines, and about 140 air cushioned landing crafts, the latter two of which are believed to be used for infiltration and other actions of the special operations forces.

The Air Force has approximately 550 combat aircraft, most of which are out-of-date models made in China or the former Soviet Union. However, some fourth-generation aircraft such as MiG-29 fighters and Su-25 attack aircraft are also included. North Korea has a large number of outdated An-2 transport aircraft as well, which are believed to be used for transportation of special operations forces.

In addition, North Korea has a large-scale special operations force⁶ and is seen to be recently placing importance on and strengthening its cyber forces as so-called asymmetric military capabilities.⁷

 See Chapter 4, Section 3-2-2 (North Korea)

3 WMD and Ballistic Missiles

In recent years, North Korea has been repeatedly launching ballistic missiles, rapidly improving its operational capabilities, such as simultaneous launch and surprise attack. In addition, given the technological maturity obtained through a series of nuclear tests, North Korea is assessed to have already miniaturized nuclear weapons to fit ballistic missile warheads and possesses the capability to launch an attack on Japan with a ballistic missile fitted with a nuclear warhead.

These military activities in North Korea pose grave and imminent threats to Japan's security and significantly undermine the peace and security of the region and the

international community. There is also the possibility that North Korea will engage in further provocative action, as the trend has been growing in recent years. Additionally, such development poses a serious challenge to the entire international community with regard to the non-proliferation of weapons, including WMDs.

In April 2018, North Korea decided to discontinue “nuclear test and inter-continental ballistic rocket test-fire.” North Korea also expressed its intention to work towards denuclearization at the inter-Korean summit meeting that month and at the U.S.-North Korea summit meeting in June of the same year. In May of the same year, international press representatives were shown the destruction of the northern nuclear test ground.

However, North Korea has not yet carried out the dismantlement of all WMDs and ballistic missiles of all ranges in a complete, verifiable, and irreversible manner. Not only that, it has also resumed launches of ballistic missiles in violation of relevant Security Council resolutions since May 2019, including SRBMs capable of flying with irregular trajectories.

In addition, in December 2019, Chairman Kim announced the intention to continue developing strategic weapons until the United States rolled back its hostile policy towards North Korea, citing reasons such as the U.S.-ROK joint military exercises.

At the 8th Congress of the KWP held in January 2021, Chairman Kim indicated a stance of further enhancing nuclear and missile capabilities and continuously improving North Korea's military power. He referred to the advancement of nuclear technology, including the development of “tactical nuclear weapons,” and preemptive and retaliatory nuclear strike capabilities, as well as development of “hypersonic gliding flight warheads” and so on.

In line with this statement, in March 2021, North Korea launched a new type of SRBMs and announced that it was “an important process for achieving the national defense science policy presented by the Congress of the KWP.” Since September of the same year, North Korea has also been improving its related technologies and operational capabilities based on its own plans, including the successive launches of ballistic missiles flying with irregular trajectories, a missile it calls a “hypersonic missile,” and a new type of submarine-launched ballistic

⁶ James Thurman, then Commander of the U.S. Forces Korea, stated, “North Korea possesses the world's largest special operations force of over 60,000” in his speech at the Association of U.S. Army in October 2012. Additionally, the 2020 Defense White Paper of the ROK notes about North Korea's Special operations force, “The forces are estimated at approximately 200,000 strong.”

⁷ Regarding North Korean cyber attacks, see Chapter 4, Section 3.

missile (SLBM).

In addition, since entering into 2022, North Korea has resumed launches of intermediate-range ballistic missile (IRBM)-class and longer range ballistic missiles, which it had not done since 2018, unilaterally escalating its provocations even as the international community was responding to Russia's aggression of Ukraine. After launching an ICBM-class ballistic missile on March 24 of that year, it stated that it would strengthen its nuclear capabilities and develop further means of attack. Such recent remarkable development of nuclear and missile-related technologies by North Korea cannot be overlooked for the security of Japan and the region. This series of actions by North Korea threatens the peace and security of Japan, the region, and the international community. With it still maintaining its stance of turning its back on the international community to continue developing nuclear and ballistic missiles, it is necessary for Japan to continue carefully monitoring trends in what actions North Korea takes moving forward.

(1) Nuclear Weapons

a. The Current Status of the Nuclear Weapons Program

Details of the current status of North Korea's nuclear weapons program are largely unclear because North Korea remains an extremely closed regime. However, considering that North Korea has already conducted six nuclear tests, it is conceivable that North Korea has made considerable progress in its nuclear weapons program.

With regard to plutonium, a fissile material that can be used for nuclear weapons,⁸ North Korea has suggested its production and extraction on several instances.⁹ As for recent activities, in September 2015, North Korea announced that all nuclear facilities in Yongbyon, including the nuclear reactor and the reprocessing facility, the disablement of which was agreed upon at the fifth and the sixth round of the Six-Party Talks in February and September 2007, respectively, had been readjusted and had started normal operation. Because the restarting of the reactor could lead to the production and extraction of plutonium by North Korea, those activities are causes of



Object claimed to be a hydrogen bomb loaded on ICBM
[AFP=Jiji]

great concern.

As for highly enriched uranium that can also be used for nuclear weapons, in June 2009, North Korea declared the commencement of uranium enrichment. In November 2010, North Korea disclosed its uranium enrichment facility to American nuclear specialists and later announced that it was operating a uranium enrichment plant equipped with thousands of centrifuges. The expansion of this uranium enrichment plant has been suggested in recent years; in this regard, North Korea could have increased its enrichment capabilities. The series of North Korean behaviors related to uranium enrichment indicate the possibility of the development of nuclear weapons using highly enriched uranium in addition to plutonium.¹⁰ In general, facilities used for uranium enrichment are more secretive in appearance than reactors used for plutonium production, and it is difficult to ascertain their activities from the outside. On the other hand, plutonium has a smaller critical mass than uranium, and it is pointed out that it is easier to make nuclear weapons smaller and lighter. In light of both these advantages, North Korea may continue to promote the development of both plutonium and uranium types of nuclear weapons.

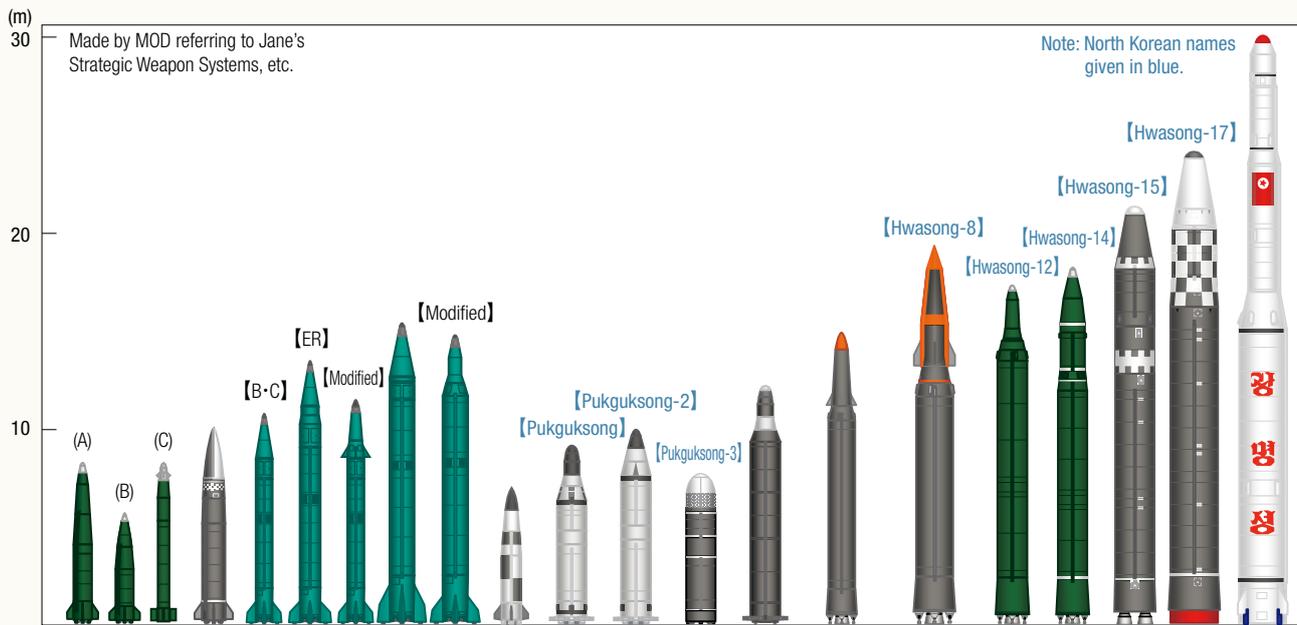
In regard to related nuclear activities, North Korea is believed to be continuing to promote the improvement of its nuclear capabilities. A report compiled by the International Atomic Energy Agency (IAEA) in August 2021 pointed out that there were signs that some nuclear-related facilities

⁸ Plutonium is synthetically produced in a nuclear reactor by irradiating uranium with neutrons, and then extracting it from used nuclear fuel at a reprocessing facility. Plutonium is then used as a basic material for the production of nuclear weapons. Meanwhile, in order to use uranium for nuclear weapons, it is necessary to extract uranium 235 (U235), a highly fissile material, from natural uranium. This process is called enrichment. Generally, a large-scale enrichment facility that combines thousands of centrifuges is used to boost the U235 concentration to nuclear weapon levels (over 90%).

⁹ North Korea announced in October 2003 that it had completed the reprocessing of 8,000 used fuel rods that contain plutonium, and in May 2005 that it had completed extraction of an additional 8,000 used fuel rods. The 2020 Defense White Paper of the ROK estimates that North Korea possesses around 50 kg of plutonium, retaining the assessment given in the 2018 Defense White Paper.

¹⁰ The 2020 Defense White Paper of the ROK assesses that North Korea possesses a substantial amount of highly enriched uranium (HEU). It has been noted that a uranium enrichment facility different from the one in Yongbyon exists in Kangson.

Fig. I-3-4-2 Ballistic Missiles and Other Missiles Developed/Possessed by North Korea



	New type SRBM (A)/(B)/(C)			New type short-range ballistic missile	Scud B, C, ER, Modified	Nodong, Modified	New type SLBM	SLBM	SLBM modified for ground launch	SLBM	Musudan	Ballistic Missile Referred to as "Hypersonic Missile"	(Possible) Ballistic Missile Referred to as "Hypersonic Missile"	IRBM-class	ICBM-class	ICBM-class	ICBM-class	ICBM-class	Taepodong-2 variant
Range	Approx. 600 km/ Approx. 400 km/ Approx. 400km*1			Approx. 600 km*1	Approx. 300 km/ Approx. 500 km/ Approx. 1,000km/ Under analysis	Approx. 1,300 km/ Approx. 1,500 km	Approx. 600 km*1	1,000 km or more	1,000 km or more	Approx. 2,000 km	Approx. 2,500-4,000 km	—*2	—	Approx. 5,000 km	5,500 km or more	10,000 km or more*3	15,000 km or more*3	10,000 km or more	10,000 km or more
Fuel/ stage	Solid / 1	Solid / 1	Solid / 1	Solid / 1	Liquid / 1	Liquid / 1	Solid / 1	Solid / 2	Solid / 2	Solid / 2	Liquid / 1	Liquid / 1	Liquid / 1	Liquid / 1	Liquid / 2	Liquid / 2	Liquid / 2	Liquid / 2	Liquid / 3
Operation platform	TEL	TEL	TEL	TEL	TEL	TEL	Submarine	Submarine	TEL	Submarine	TEL	TEL	—	TEL	TEL	TEL	TEL	TEL	Launch site

* 1 Ranges of new type SRBM (A)/(B)/(C), new type short-range ballistic missile, and new type SLBM are the largest ones achieved.

* 2 At the time of launch on January 5, 2022, the ballistic missile referred to as a "Hypersonic Missile" flew about 500 km if it were launched with a normal ballistic trajectory. Another time of launch on January 11 of the same year, it was believed that the flight distance may have been less than 700 km if it were launched with a normal ballistic trajectory. It is also believed that the flight distance may have been longer than this, but analysis is currently being conducted.

* 3 Depends on weight of the warhead, etc.

had been operating since the beginning of that year, and that this was "a cause for serious concern." For example, it has been pointed out that the nuclear reactor at Yongbyon, which was believed to have been out of operation since 2018, has restarted operations since July 2021.¹¹

With regard to the development of nuclear weapons, North Korea conducted nuclear tests on October 9, 2006, May 25, 2009, February 12, 2013, January 6, 2016, September 9, 2016, and September 3, 2017. It is highly likely that North Korea has made strides in its nuclear weapons program, collecting the necessary data through these nuclear tests.

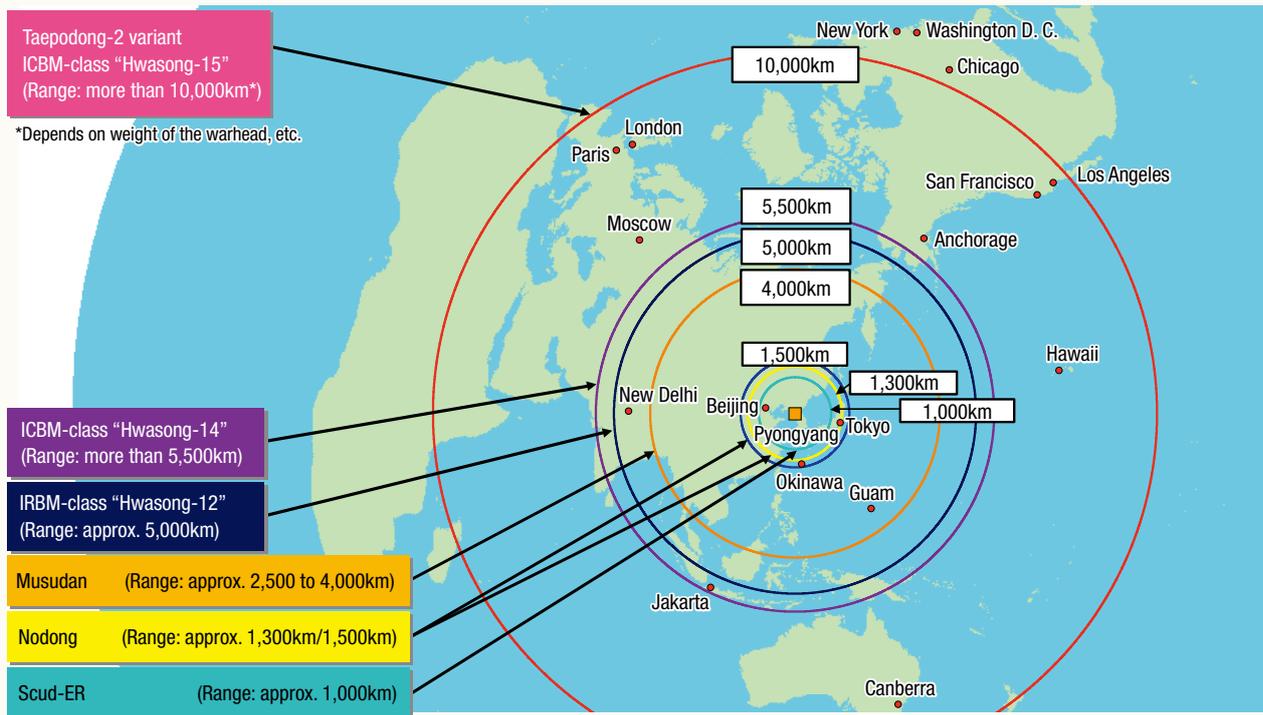
It is believed that North Korea seeks to miniaturize nuclear weapons and develop them into warheads that

can be carried by ballistic missiles, as part of its nuclear weapons program. In September, 2017, it was announced that Chairman Kim Jong-un had visited North Korea's Nuclear Weapons Institute and had seen a hydrogen bomb capable of being loaded into an ICBM, in addition to which, following North Korea's sixth nuclear test that was forced through on the same day, North Korea announced that it "successfully carried out a test of H-bomb for ICBM."

In regard to miniaturization of a nuclear weapon small enough to be carried by a ballistic missile, considering the fact that the United States, the former Soviet Union, the United Kingdom, France, and China succeeded in acquiring such technology by as early as the 1960s, as well as the technological maturity that is estimated to have been

¹¹ According to the IAEA's "Application of Safeguards in the Democratic People's Republic of Korea" published in August 2021. Indicated by a Member State in the final report of the Panel of Experts of the UN Security Council Democratic People's Republic of Korea (DPRK) Sanctions Committee released in April 2022.

Fig. I-3-4-3 Range of North Korea's Ballistic Missiles



Note 1: The figure above shows a rough image of the distance each missile can reach from Pyongyang for the sake of convenience.
 Note 2: Quotation marks indicate the names used by North Korea.
 Note 3: The firing range for ICBM-class ballistic missile "Hwasong-17" can reach 15,000 km or more, depending on the warhead's weight etc. When hypothetically calculating a distance of 15,000 km from Pyongyang, the trajectory can include the whole African continent and part of the South American continent.

reached through North Korea's previous six nuclear tests, it is assessed that North Korea has already miniaturized nuclear weapons to fit ballistic missile warheads.¹² There have also been reports that North Korea possesses 40 to 50 nuclear warheads.¹³

Furthermore, the yield of the sixth nuclear weapons test in 2017 was estimated to be the largest ever, with a maximum yield of approximately 160 kt. Given the size of the estimated yield, the possibility cannot be discounted that the test was of a hydrogen bomb.¹⁴

In addition, it has been suggested that North Korea has been working on restoring its northern nuclear test site since March 2022, which it publicly announced it had blown up in 2018.

In any case, North Korea's nuclear weapons development, considered in conjunction with North Korean efforts to enhance ballistic missile capabilities, including extending

the range of ballistic missiles that are the delivery vehicles of WMDs, poses grave and imminent threats to Japan's security, and significantly undermines peace and security of the region and international community. These trends have been growing in recent years, and it can never be accepted.

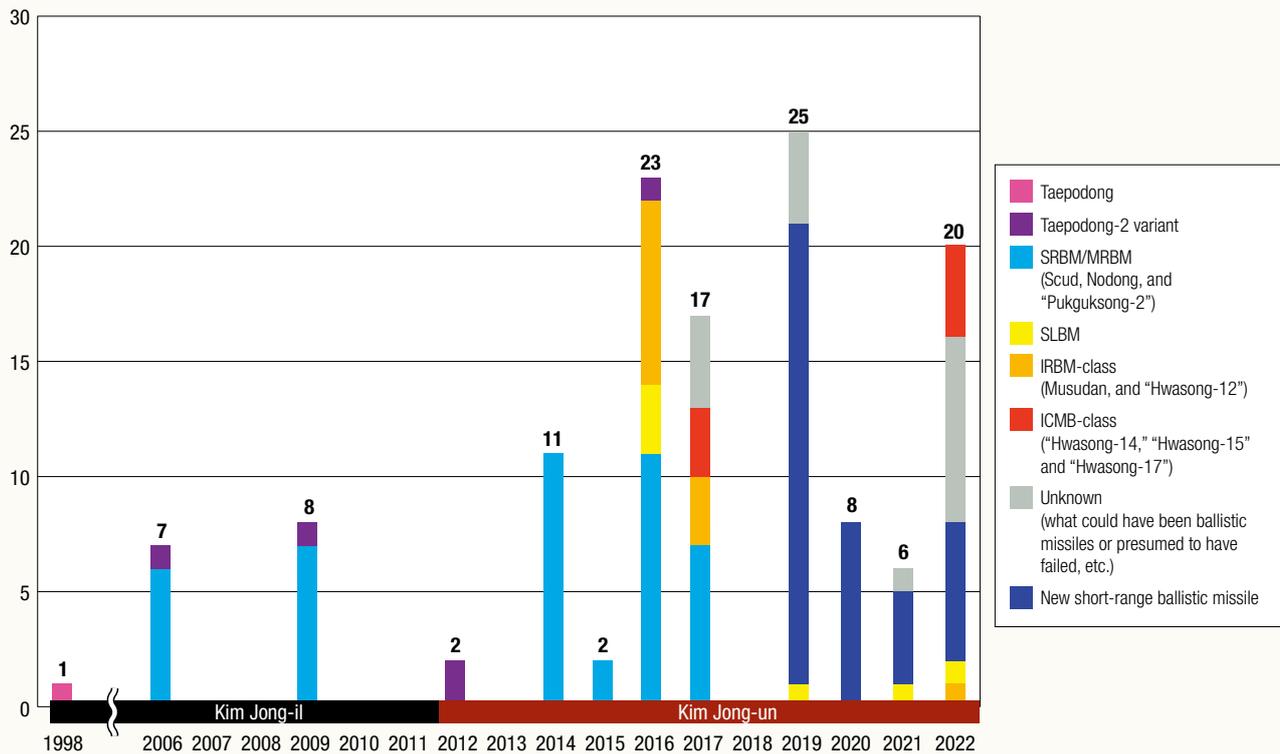
b. Background of the Nuclear Program

North Korea's ultimate goal is allegedly the maintenance of the existing regime.¹⁵ Taking into account aspects such as claims by North Korea that nuclear weapons would never be traded away at negotiations, as well as the significant qualitative disparity in conventional forces vis-à-vis the United States and the ROK, it is believed that North Korea is promoting nuclear development with the recognition that it needs its own nuclear deterrence to maintain its regime against the threat from the United States, which includes nuclear weapons.

12 Over ten years have already passed since North Korea conducted its first nuclear test in October 2006. Furthermore, North Korea has conducted six nuclear tests to date. This timetable for technology development and the number of tests are reaching levels that are by no means inadequate, even when compared to the processes of developing technologies to miniaturize and lighten nuclear weapons in the United States, former Soviet Union, the United Kingdom, France, and China. The 2020 Defense White Paper of the ROK assesses that "North Korea's ability to miniaturize nuclear weapons seems to have reached a considerable level."
 13 According to SIPRI Yearbook 2021.
 14 The 2020 Defense White Paper of the ROK noted that the explosive yield of the sixth nuclear test was approximately 50 kt, significantly larger than the yield of the past tests and that this was assessed to be a hydrogen bomb test. North Korea also insisted that its fourth nuclear test, conducted in January 2016, was a hydrogen bomb test. However, given that the yield of that test is estimated at 6 to 7 kts, it is difficult to conceive that this was a hydrogen bomb test as generally defined.
 15 According to "Military and Security Developments Involving the Democratic People's Republic of Korea" by the U.S. DoD (February 2016), and others.

Fig. 1-3-4-4 Major Trends in North Korea's Ballistic Missile and Other Missile Launches

Number of Ballistic Missiles and Other Missiles Launched by North Korea (as of May 2022)



- (i) **Increase of ranges:** Development of intercontinental ballistic missiles-class ballistic missiles (since 2017) with a range exceeding 10,000km
- (ii) **Enhancement of the accuracy and operational capabilities necessary for saturation attacks:** Repeated launches from unprecedented locations in the early morning and late hours of the night using TELs, often in multiple numbers (since 2014). Some ballistic missiles are said to be equipped with a Maneuverable Reentry Vehicle (MaRV) (since 2017).
- (iii) **Enhancement of secrecy and instantaneity and the ability to conduct surprise attacks:** Launches of SLBMs (since 2016) and acceleration of the development of solid-fueled ballistic missiles (since 2016)
- (iv) **Irregular trajectories:** Launches of short-range ballistic missiles having a shape similar to that of the Russian "Iskander," which are said to be able to fly at a lower altitude than conventional ballistic missiles and with irregular trajectories (since 2019)
- (v) **Diversification of the forms of launches:** Ballistic missile launches assumed to have used a lofted trajectory have been confirmed (since 2016).

Fig. 1-3-4-5 Cases of North Korean Ballistic Missiles Overflying Japan

Launches of ballistic missiles allegedly as launches of satellites after reporting supposed falling areas to international organizations (three times)

Date	Presumed type of missile	Number of launches	Location	Flight distance
2009.04.05	Taepodong-2 or variant	1	Taepodong Area	3,000 km or more
2012.12.12	Taepodong-2 variant	1	Tongch'ang-ri Area	Approx. 2,600 km (second stage landfall)
2016.02.07	Taepodong-2 variant	1	Tongch'ang-ri	Approx. 2,500 km (second stage landfall)

Launches of ballistic missiles without prior notice (three times)

Date	Presumed type of missile	Number of launches	Location	Flight distance
1998.08.31	Taepodong-1	1	Taepodong Area	Approx. 1,600 km
2017.08.29	IRBM-class "Hwasong-12"	1	Near Sunan	Approx. 2,700 km
2017.09.15	IRBM-class "Hwasong-12"	1	Near Sunan	Approx. 3,700 km

* After the launch of Taepodong-1 on August 31, 1998, North Korea announced that it was the launch of a satellite.
 * Quotation marks indicate the names used by North Korea.

North Korea has repeatedly insisted that it will not agree to unilateral denuclearization, making its own status as a “nuclear weapon state” a prerequisite, including Chairman Kim’s statement in January 2021 that North Korea would be a “responsible nuclear weapon state.” In addition, it has been noted that even after announcing a commitment to complete denuclearization of the Korean Peninsula, North Korea has continued nuclear development¹⁶ and that a uranium enrichment facility not disclosed by North Korea exists.

In March 2022, Chairman Kim Jong-un stated that North Korea would “keep bolstering the powerful nuclear war deterrence qualitatively and quantitatively so as to ensure the security of the country and cope with all kinds of potential crises in the future,” and with the possibility of further provocative action, Japan must keep a close watch on what kind of actions North Korea will take moving forward.

(2) Biological and Chemical Weapons

North Korea is an extremely closed regime. In addition, most materials and technology used for manufacturing biological and chemical weapons are for both military and civilian uses, which in turn facilitates camouflage. For these reasons, details of the status of North Korea’s biological and chemical weapons development and arsenals are unclear. However, with regard to chemical weapons, North Korea is suspected to have several facilities capable of producing chemical agents and already a substantial stockpile of such agents. North Korea is also thought to have some infrastructure for the production of biological weapons.¹⁷ Possession of sarin, VX, mustard and other chemical weapons, and of anthrax, smallpox, pest and other biological agents that could be used as biological

weapons have been pointed out.

The possibility cannot be denied that North Korea is able to load biological and/or chemical weapons on warheads.

(3) Ballistic Missiles

As is the case with WMDs, many of the details of North Korea’s ballistic missiles are unknown, partly owing to the North Korea’s extremely closed regime. It appears, however, that North Korea gives high priority to the development of ballistic missiles out of political and diplomatic considerations and from the viewpoint of earning foreign currency, in addition to enhancing its military capabilities. The ballistic missiles deemed to have been possessed and developed by North Korea are the following.¹⁸

-  **See** Fig. I-3-4-2 (Ballistic Missiles and Other Missiles Developed/Possessed by North Korea)
 Fig. I-3-4-3 (Range of North Korea’s Ballistic Missiles)
 Fig. I-3-4-4 (Major Trends in North Korea’s Ballistic Missile and Other Missile Launches)
 Fig. I-3-4-5 (Cases of North Korean Ballistic Missiles Overflying Japan)

a. Types of Ballistic Missiles Possessed or Developed by North Korea

(a) SRBM launched since 2019

Since 2019, North Korea has launched several types of SRBMs that are presumed to be new models. From published images, it can be ascertained that these SRBMs were launched from a wheeled-drive or continuous-tracked



Image publicly released by North Korea when it announced the launch of short-range ballistic missiles from rail-mobile launcher (September 2021)
 [Korea News Service=Jiji]

¹⁶ According to “North Korea Military Power” released by the U.S. Defense Intelligence Agency (DIA) in October 2021, and others.

¹⁷ The 2020 Defense White Paper of the ROK points out that, following the commencement of production in the 1980s, it is estimated that North Korea has a stock of 2,500-5,000 tons of various chemical weapons stored. It also notes that North Korea likely has the capability to produce a variety of biological weapons including anthrax, smallpox, and pests. North Korea ratified the Biological Weapons Convention in 1987 but has not acceded to the Chemical Weapons Convention.

¹⁸ According to “Jane’s Sentinel Security Assessment China and Northeast Asia” (accessed in March 2022) North Korea possesses 700 to 1,000 ballistic missiles in total, 45% of which are presumed to be Scud-class, 45% Nodong-class, and the remaining 10% other intermediate- and long-range ballistic missiles.

Transporter-Erector-Launcher (TEL)¹⁹ or railway car, with the characteristic radial exhausts of solid fuel-propelled engines identifiable on each of the images.

(i) SRBM A

The SRBM (described by North Korea as “new type of tactical guided weapon”) launched in 2019 on May 4 and 9, July 25, and August 6 as well as on January 27, 2022 are all presumed to have the same system. Two missiles were launched on each of the aforementioned dates and flew up to approximately 600 km. In terms of the shape, the launched missiles have a similarity to that of the Russian short-range ballistic missile “Iskander.” It is also presumed that this missile is able to fly at a lower altitude than conventional ballistic missiles with an irregular trajectory, and that it is pointed out that it can carry nuclear warheads.²⁰

North Korea also launched two SRBMs on both September 15, 2021 and January 14, 2022. Based on images released by North Korea, these missiles were launched from railway cars that appear to have been converted from ordinary freight cars. They have external similarities with SRBM A, and it is possible that they were developed based on that missile. North Korea has announced that it was a firing drill by the “railway-borne missile regiment,” and has also expressed its intention to expand the formation in the future.

In this way, North Korea has been pursuing the operationalization of the SRBM A while diversifying its launch modes towards its mass production and deployment, and future developments will be closely watched.

(ii) SRBM B

The SRBM (described by North Korea as “new weapon” or as “tactical guided weapon”) launched on August 10 and 16, 2019, on March 21, 2020, and on January 17, 2022 are all presumed to have the same system and to be of a different type from the aforementioned SRBM A. Two missiles were launched on each of the aforementioned dates and flew approximately 250-400 km. It is also presumed that this missile is able to fly at a lower altitude than conventional ballistic missiles with an irregular trajectory.

(iii) SRBM C

The SRBM (North Korea calls “super-large multiple rocket launcher”) launched in 2019 on August 24, September 10, October 31, and November 28, and on March 2, 9 and 29, 2020 are all presumed to be of a different type from the aforementioned SRBM A and B. Two missiles were launched on each of the aforementioned dates and flew approximately 300-400 km. Some of the intervals between launches were estimated less than 1 minute, suggesting that North Korea is trying to improve the continuous fire capability required for saturation attacks and the like. Regarding TELs, various types can be confirmed in images published by North Korea.

Details are still being analyzed for the three ballistic missiles launched on May 12, 2022, including the possibility that they were SRBM C.

(iv) SRBMs launched in March 2021

On March 25, 2021, North Korea launched two new-type SRBMs (called “new-type tactical guided missile” by North Korea) that had never been launched previously. This missile is presumed to have the same system as the one mounted on the five-axle TEL which appeared in the military parade in January of the same year. It has been pointed out that the launched missile may have been developed based on the SRBM A, which is believed to be capable of flying at lower altitudes than conventional ballistic missiles with irregular trajectories.²¹ Taking this into account, it is estimated that the missiles flew approximately 600 km.

In addition, North Korea carried out two launches of what could have been SRBMs on July 31, 2019 and another two a couple of days later, on August 2.

Through such launches, North Korea appears to be pursuing enhancement of related technologies and operational capabilities, including enhancing secrecy and instantaneity, to make it difficult to detect signs of a launch. It also appears to be improving its ability to conduct surprise attacks and its continuous fire capability, as well as missile flight at low altitudes with irregular trajectories. Considering the distances flown, it would appear that not only the ROK, but also parts of Japan would be within

¹⁹ The signs of a launch from a fixed launcher are easy for the adversary to detect and are vulnerable to attack by the adversary. TEL was developed mainly by the former Soviet Union, among others, in order to make the detection of launch signs more difficult and increase survivability. According to the National Air and Space Intelligence Center’s “Ballistic and Cruise Missile Threat” published in January 2021, North Korea possesses a maximum of 100 TELs for Scuds, 100 TELs for Nodongs, and 50 TELs for IRBMs (Musudans).

As for a TEL-mounted missile launch, it is deemed difficult to detect individual specific signs in advance concerning the detailed location and timing of the launch. This is because it is operated by being mounted and transported on a TEL, and furthermore, military-related underground facilities are thought to exist all over North Korea.

Along with activities related to the development of ballistic missiles, developments related to the building of TELs require close watch as they concern the operational capabilities of ballistic missiles by North Korea.

²⁰ According to the Congressional Research Service’s “North Korea’s Nuclear Weapons and Missile Programs” (updated December 2021) and others.

²¹ In April 2021, ROK Defense Minister Suh Wook answered in the ROK National Assembly that the missile flew in a “pull-up maneuver.” In addition, the “Midterm Report of the Panel of Experts of the UN Security Council Sanctions Committee on North Korea” published in October 2021 also pointed out that the missile performed as “pull-up maneuver.”

range of some of the SRBMs launched. There is also a concern that this short-range ballistic missile technology will be applied to longer-range missiles in due course.

(b) Scud

The Scud is a liquid fuel propellant single-stage ballistic missile and is transported and operated on a TEL.

Scud B is an SRBM with a range of 300 km, and Scud C is an SRBM with an extended range of 500 km. It is believed that North Korea has manufactured and deployed them, and has exported them to the Middle East and other countries.

The Scud ER (Extended Range) is a ballistic missile that has an extended range due to the extension of the Scud's body as well as the reduction in weight of the warhead, among other factors. The range of the Scud ER is estimated to reach approximately 1,000 km, and it appears that a part of Japan falls within this range.

Furthermore, North Korea is also developing a ballistic missile that appears to be an improvement of the Scud missile. This ballistic missile was launched on May 29, 2017. A day later, North Korea announced that it had successfully conducted the new development and test launch of a ballistic rocket incorporating a precision navigation guidance system.

In addition, while the images released by North Korea show that the ballistic missile was launched from a continuous-tracked TEL and had what appears to be small wings on its warhead, i.e., characteristics different from those of existing Scud missiles, the shape other than the warhead and length are similar to existing Scud missiles. Another similarity is that it can be confirmed that the missile has straight-line exhausts characteristic of a liquid fuel-propelled engine. It has also been noted that this ballistic missile is equipped with a Maneuverable Re-entry Vehicle (MaRV).²² North Korea is believed to be improving the accuracy of its ballistic missile attacks.

(c) Nodong

The Nodong is a liquid fuel propelled single-stage ballistic missile and is transported and operated on a TEL. It is assessed to have a range of about 1,300 km, reaching almost all of Japan.

Nodong is likely based on Scud technology, while the details of its performance have not been confirmed. Although Nodong may not be able to carry out precise strikes on specific target installations, it has been suggested that North Korea is working to increase the Nodong's accuracy. A launch aimed at enhancing accuracy by improving the shape of the warhead (whose range is deemed to reach approximately 1,500 km through the weight reduction of the warhead) was confirmed for the first time in the images published by North Korea a day after the launch of one Scud and two Nodong missiles on July 19, 2016.

(d) Submarine-Launched Ballistic Missile (SLBM)

North Korea is believed to possess one Gora-class submarine (displacement of approximately 1,500 tons) that is capable of carrying and launching a single SLBM and is being operated mainly as a test vessel. In addition, North Korea is believed to be upgrading its existing Romeo-class submarines to carry SLBMs. Furthermore, in January 2021, Chairman Kim mentioned the goal of possessing nuclear submarines.

North Korea has been developing SLBMs to be mounted on these submarines, and in May 2015, it announced the first successful test launch of an SLBM.²³ It is deemed that through developing the SLBM and a new submarine to carry it, North Korea intends to diversify its ballistic missile attack capabilities and improve survivability.

(i) SLBM "Pukguksong"

Following North Korea's launch of an SLBM (the "Pukguksong" type according to the North Korean designation) from a Gora-class submarine on April 23, 2016, it launched the same missile a total of three times in July and August of the same year.

Judging from the images and footage that it has made public so far, North Korea may have succeeded in operating the "cold launch system," in which the missile is ignited after it is ejected into the air. Moreover, it appears, based on observations such as the shape of the flame coming out of the missile and the color of the smoke, that the solid fuel-propelled system was adopted.

The "Pukguksong" missile that was launched in August

²² According to "Jane's Sentinel Security Assessment China and Northeast Asia" (accessed in March 2022), the launch on May 29, 2017, was presumed to have been the first launch of a short-range ballistic missile based on a Scud missile, equipped with a MaRV, suggesting that North Korea has made advances in its precision guidance systems.

²³ Through now, the MOD has presumed and announced six instances of SLBM launches by North Korea on April 23, 2016 ("Pukguksong" type), July 9, 2016 ("Pukguksong" type), August 24, 2016 ("Pukguksong" type), October 2, 2019 ("Pukguksong-3" type), October 19, 2021 ("new type of SLBM") and May 7, 2022 ("new type of SLBM"). Among these, the 2016, 2021 and 2022 launches (five in total) were evaluated as being made from a Gora-class submarine.

In addition, on May 9, 2015, North Korea announced that it had succeeded in a test launch of an SLBM. On January 8, 2016, it released footage of an SLBM test launch that appeared to be different from the one unveiled in May 2015.

In regard to the July 9, 2016 launch announced by the MOD, North Korea has not disclosed the fact that the launch took place.

2016 flew about 500 km, but was on a somewhat higher trajectory compared to the normal altitude of a ballistic missile with a firing range of 500 km. If it were launched with a nominal trajectory, the firing range is expected to surpass 1,000 km.

(ii) SLBM “Pukguksong-3”

On October 2, 2019, North Korea launched one SLBM (referred to as the “Pukguksong-3” by North Korea) different from the “Pukguksong” SLBM. This SLBM is estimated to have flown about 450 km. As it reached a maximum altitude of about 900 km, it is surmised to have been launched with a lofted trajectory. If launched with a nominal trajectory, it is estimated that it could have a range of approximately 2,000 km. The characteristic radial exhausts of solid fuel-propelled engines are identifiable on images published by North Korea. The SLBM in question could potentially have been launched from underwater launch test equipment.

In addition, North Korea showcased two possible new types of SLBMs referred to as “Pukguksong-4” and “Pukguksong-5” in the military parades in October 2020 and January 2021 respectively. In addition, an exhibition titled Defence Development Exhibition “Self-Defence-2021” held in October 2021 featured an exhibited item that had external similarities to the “Pukguksong-5.”

(iii) New Type of SLBM

North Korea launched a new type of SLBM on October 19, 2021, and May 7, 2022. This SLBM is believed to have been launched from a Gorae-class submarine both times, and flew with an irregular trajectory at a low altitude before falling into the Sea of Japan. The trajectory of the October 2021 launch in particular is believed to have been a so-called pull-up trajectory, in which the SLBM descended once, maneuvered again, and then ascended.

Based on images released by North Korea, it is possible that the missile was developed based on the SRBM A, as it has external similarities with that missile. In addition, the item that appeared to be an SLBM exhibited at the Defence Development Exhibition “Self-Defence-2021” held in the same month, of which the name has not been announced by North Korea, is believed to have been a representation of the SLBM launched at that time.

(e) Ballistic Missile Modified from the SLBM

North Korea launched a ballistic missile on both February 12 and May 21, 2017, both of which appeared to be a modified version of the SLBM “Pukguksong” for ground launch (referred to by North Korea as “Pukguksong-2”). This ballistic missile is estimated to have flown

approximately 500 km on both occasions, on somewhat higher trajectories than normal. If it were launched with a nominal trajectory, the firing range is assessed to surpass 1,000 km. A day after the launch in February of the same year, North Korea announced that it was developed as a ground-to-ground ballistic missile based on the results of the August 2016 SLBM launch. It also announced a day after the launch in May 2017 that it had again successfully conducted the test launch of the missile and that Chairman Kim Jong-un had authorized its “operational deployment.”

Moreover, the launch by a “cold launch system,” in which the missile is ignited after it is ejected into the air from a continuous-tracked TEL, and the characteristic radial exhausts of solid fuel-propelled engines, can be confirmed from each of the images that North Korea released. It has the characteristics of appearing to be using “cold launch system” and solid fuel-propelled engines in common with the SLBM “Pukguksong.”

(f) Intermediate-Range Ballistic Missile (IRBM)-Class

To date North Korea has launched four liquid fuel-propelled IRBM-class ballistic missiles (referred to by North Korea as “Hwasong-12”). One of these ballistic missiles was launched on each of May 14, 2017 and January 30, 2022, and based on their flight patterns, it is presumed that they were launched with a lofted trajectory. Had they been launched with a nominal trajectory, the maximum firing range is assessed to be close to approximately 5,000 km. In addition, the straight-line exhausts characteristic of a liquid fuel propelled engine can be confirmed from the images released by North Korea a day after the launch, suggesting that the “Hwasong-12” uses liquid fuel.

On August 29 and September 15, 2017, single “Hwasong-12” missiles were launched and flew over Japan’s territory in the vicinity of the Oshima Peninsula and Cape Erimo. These launches were the first cases of North Korea launching what it calls ballistic missiles that flew over Japan’s territory.

In view of their flight paths, these missiles appear to demonstrate a certain level of function as an IRBM. Also, the fact that missiles that overflew Japan were launched in succession in a short time period would suggest that North Korea is steadily improving its ballistic missile capabilities.

Furthermore, in the May and August launches of the same year, it was confirmed that the missiles were launched after being separated from the wheeled-drive TEL. However, in the September launch, it was confirmed that the missile was launched while still mounted on the wheeled-drive TEL. North Korea claimed that the launch

was for “confirming practical operational procedures” and “realizing the potential of the ‘Hwasong-12.’” At the time of the January 2022 launch, it stated that it had tested a “being produced and deployed ‘Hwasong-12.’” Based on the series of announcements, it is believed that the missile has been further operationalized since 2017 and may be in the production stage.

In 2016 North Korea conducted repeated launches of the Musudan that is presumed to be an IRBM-class ballistic missile,²⁴ but although the missile launched in June of the same year flew a certain distance with a lofted trajectory, the fact that there were two successive launch failures in October of the year would suggest that there may still be obstacles remaining towards the operationalization of the Musudan and that North Korea may be concentrating on the development and operationalization of the “Hwasong-12” as an IRBM-class instead.

(g) Intercontinental Ballistic Missile (ICBM)-Class

(i) ICBM-class “Hwasong-14”

North Korea launched ICBM-class ballistic missiles (referred to by North Korea as “Hwasong-14”) on July 4 and 28, 2017. From the flight pattern, it is presumed that the two missiles were launched with a lofted trajectory. If they were to have been launched with a normal trajectory, it is estimated that they would have a maximum range of at least 5,500 km. The missiles were presumed to be of two-stage construction.

On July 4 of the same year, the day of the launch, North Korea made an “important announcement,” announcing that it had successfully conducted a test launch of a new type of ICBM. Furthermore, on the day following the July 28 launch, North Korea announced that the “nuclear bomb detonation device” had functioned normally, emphasizing that the safety of the warhead in an atmospheric reentry environment had been made maintained. This suggests that North Korea is aiming to operationalize long-range ballistic missiles.

Based on the released images, the “Hwasong-14”-type ICBM-class ballistic missiles have the following in common with the “Hwasong-12”-type IRBM-class ballistic missile: (1) the configuration of engine system (one main engine and four auxiliary engines); (2) the shape of the lower part of the propulsion system (conical shape);

and (3) the straight-line flame of liquid-propulsion systems can be confirmed. Based on the respective ranges that can be estimated for the missiles and other matters, it can be assumed that the ICBM-class ballistic missile was possibly developed on the basis of the “Hwasong-12”-type IRBM-class ballistic missile.

Also, based on images published by North Korea, it can be confirmed that the “Hwasong-14”-type missiles had been mounted on the wheeled eight-axle TEL similar to KN-08/14.²⁵ However, it can be confirmed from the images at the time of the launches that they were launched from simplified launch pads, not TELs.

(ii) ICBM-class “Hwasong-15”

On November 29, 2017, North Korea launched a single missile that is presumed to have been an ICBM-class ballistic missile (referred to by North Korea as “Hwasong-15”). From the flight pattern it is presumed that the missile was launched with a lofted trajectory. On the day of the launch, North Korea made a “government statement,” declaring that it had successfully conducted a test launch of the “Hwasong-15,” a newly developed type of ICBM with the capability to strike all areas of the U.S. mainland, and asserting that it had now completed development of its state nuclear force.

The following points would suggest that this missile is an ICBM-class ballistic missile, different from the “Hwasong-14”-type ballistic missile: (1) its flight distance and altitude; (2) North Korea’s announcement (the successful test launch of a new type of ICBM, the “Hwasong-15” was announced); (3) the fact that the missile was deployed on a previously unseen nine-axle wheel-drive TEL; and (4) shape of the warhead nose being more rounded than previous missiles. In addition, according to released images, the missile was of a two-stage design, and it can be confirmed that it was removed from the TEL prior to launch and that its straight-line exhausts are characteristic of a liquid fuel propelled engine.

Furthermore, based on the flight altitude, distance flown and released images, it can be assumed that the “Hwasong-15” could have a range in excess of 10,000 km, depending on the weight of the warhead deployed, etc.

In addition, although the wheel-drive TELs possessed by North Korea are thought to be modified versions of

²⁴ It has been suggested that, given its range of between 2,500 and 4,000 km, all parts of Japan and Guam may fall within the Musudan’s firing range. Similar to its Scud and Nodong counterparts, it is liquid fuel-propelled and is loaded onto a TEL to transport and operate. It has been noted that Musudan is a revamped version of the Russian SLBM SS-N-6 that North Korea acquired in the early 1990s.

²⁵ The details of the new missile “KN-08” which was showcased at the military parade in April 2012 and July 2013 are unknown. However, the missile is believed to be an ICBM. At the military parade in October 2015, a new missile thought to be the “KN-08” was showcased with a different-shaped warhead from the previous version. The new missile, considered a variant of the “KN-08,” is called the “KN-14.”

Russian and Chinese TELs, it is noteworthy that North Korea has claimed to have developed its own TEL.

(iii) Further increasing range of ICBM-class ballistic missiles

North Korea launched one ballistic missile on both February 27 and March 5, 2022. Both are estimated to have been launched with a lofted trajectory, flying approximately 300 km and reaching maximum altitudes of approximately 600 km and 550 km respectively. North Korea announced the day after each launch that they were “reconnaissance satellite” development tests, but it is believed that it was a new type of ICBM-class ballistic missile (referred to by North Korea as “Hwasong-17”) that was launched.

On March 24, North Korea again launched an ICBM-class ballistic missile, announcing the next day that it had test-launched a “Hwasong-17”-type missile.²⁶ The missile flew over 1,100 km with a lofted trajectory and reached a maximum altitude of approximately over 6,000 km, far exceeding that of the “Hwasong-15” launched in November 2017. Based on the trajectory, it can be assumed that the missile could have a range in excess of 15,000 km, depending on the weight of the warhead deployed, etc., thus renewing concerns over the increasing ranges of North Korea’s ballistic missiles.

The ICBM-class ballistic missile referred to by North Korea as “Hwasong-17” was first confirmed at the military parade in October 2020, and later made another appearance at the Defence Development Exhibition “Self-Defence-2021” held in October 2021. The missile is mounted on an 11-axle TEL, believed to be the largest in North Korea’s possession, and its size is thought to exceed that of the existing “Hwasong-15”-type. It has been suggested that, this raises the possibility that the missile is more powerful from increased warhead weight and could feature multiple warheads, which are generally considered difficult to intercept.

The ballistic missile launched on May 4, 2022 was launched with a lofted trajectory with a maximum altitude of about 800 km and a distance of about 500 km, though details are still being analyzed, including the possibility that the missile was an ICBM-class ballistic missile. In addition, one of the at least two ballistic missiles launched on May 25, 2022, which was launched with a lofted trajectory with a maximum altitude of about 550 km and a distance of about 300 km, is presumed to have been an ICBM-class

ballistic missile. Details are still being analyzed, including the possibility that the missile was a “Hwasong-17”-type ballistic missile.

(h) Taepodong-2

Taepodong-2 is a long-range ballistic missile launched from a fixed launch pad.²⁷ It is believed to use in its first stage, four engines, each of which is developed based on the technologies of Nodong, and the same type of engine in its second stage. Its range is estimated to be approximately 6,000 km for the two-stage type, while the range of its three-stage variant can be more than approximately 10,000 km assuming that the weight of the warhead is not over approximately 1 ton. Taepodong-2 missiles and its variants have been launched a total of five times so far.

Most recently, in February 2016, North Korea conducted a launch of a missile disguised as a “satellite” from the Tongch’ang-ri district in the northwest coastline of North Korea using a Taepodong-2 variant after notifying international organizations. It is assessed that North Korea’s long-range ballistic missiles’ technological reliability had been advanced by this launch because it is estimated that (1) it successfully launched two similar types of ballistic missiles in a row; (2) the missile flew in almost the same way as the last launch; and (3) it put an object into orbit around the Earth.

Accordingly, it is believed that these test launches of long-range ballistic missiles can contribute to the development of shorter-range missiles in such ways as increasing the range and payload capability and improving target accuracy. Also, related technology, such as the



Image publicly released by North Korea when it launched a ballistic missile it called a “hypersonic missile” (January 2022) [AFP=Jiji]

²⁶ North Korea also launched a ballistic missile shortly prior on March 16, 2022, but it is presumed to have not flown properly and other details, including the type of missile, are still being analyzed.

²⁷ There is also Taepodong-1, which may have been a transitory product for the development of Taepodong-2.



Image publicly released by North Korea when it launched an ICBM-class ballistic missile “Hwasong-15” (November 2017) [AFP=Jiji]



Exhibition titled “Defence Development Exhibition: Self-Defence 2021” held by North Korea (October 2021) [AFP=Jiji]



The “Hwasong-17” ICBM-class ballistic missile that appeared at the October 2020 military parade [EPA=Jiji]



Exhibition titled “Defence Development Exhibition: Self-Defence 2021” held by North Korea (October 2021) [Korea News Service=Jiji]

separation technology of multi-stage propelling devices and the technology of posture control and thrust modulation of long-range ballistic missiles, can be applied to other middle-range and long-range ballistic missiles that North Korea is newly developing. Therefore, the launch may lead to the further advancement of North Korea’s entire ballistic missile program and diversification of attack measures.

(i) Ballistic Missiles Referred to as “Hypersonic Missiles”

On January 5 and 11, 2022, North Korea launched one ballistic missile, which it referred to as a “hypersonic missile,” each day. Both missiles are believed to have flown at lower altitudes than conventional ballistic missiles. In particular, the missile launched on January 11 may have flown at a maximum speed of approximately Mach 10 with an irregular trajectory that included horizontal maneuvers.

Based on images released by North Korea, it is confirmed that the missiles were launched from a wheeled-drive TEL, and that they had a conical warhead and were equipped with an engine appearing to be a liquid-fuel propulsion system. It has been pointed out that the conical warhead may have been based on Maneuverable Re-entry

Vehicle (MaRV)-related technology. In any case, based on announcements through now, it is clear that North Korea continues to pursue the development and enhancement of hypersonic missiles and the like in an attempt to breach missile defense networks. It is necessary to monitor its future technological progress, including its application of these technologies on longer-range missiles and moves for the development of a possible ballistic missile with a flat warhead (referred to as the “Hwasong-8” by North Korea), which was launched on September 28, 2021 with the designation of being a “hypersonic missile.”

b. Major Trends in Ballistic Missile Launches

North Korea has repeatedly launched various types of ballistic missiles. The following characteristics can be observed for their trends.

Firstly, it appears that North Korea seeks to increase the firing range of ballistic missiles. It is considered necessary for the operationalization of long-range ballistic missiles to further verify technology for protecting the re-entry vehicle from the ultrahigh temperature that is generated during the atmospheric re-entry of the warhead part. North Korea, with announcements such as the one in November 2017

on the day of the launch of a “Hwasong-15” ICBM-class ballistic missile which could have a range of over 10,000 km depending on the weight of its warhead, claiming that it had re-verified warhead reliability in a reentry environment, is displaying an intention to seek to secure and enhance technology aimed at the operationalization of long-range ballistic missiles.

In addition, based on the flight trajectory at the time, the ICBM-class ballistic missile launched by North Korea on March 24, 2022 can be assumed to have a range in excess of 15,000 km depending on the weight of the warhead deployed, etc., in which case the entire U.S. would fall within its range.

Should North Korea make further progress in the development of ballistic missiles, including the acquiring of reentry technologies related to long range ballistic missiles, it may come to have a one-sided understanding that it has secured a strategic deterrence against the United States. If North Korea has such a false sense of confidence and recognition regarding its deterrence, it could lead to an increase and escalation of military provocations by North Korea in the region and could create situations that are deeply worrying also for Japan.

North Korea is presumed to have acquired the atmospheric re-entry technologies required for the operationalization of Nodong and Scud-ER ballistic missiles, within whose range Japan lies, suggesting that it already has the ability to attack Japan with nuclear weapons fitted to these ballistic missiles.

Secondly, North Korea may be aiming to enhance the accuracy, continuous fire capability, and operational capabilities necessary for saturation attacks and the like. As for the Scud and Nodong, since 2014, they have been launched from unprecedented locations, cutting across the Korean Peninsula, in the early morning and late hours of the night using TELs, often in multiple numbers. This indicates the ability to launch Scud and Nodong missiles from any place and at any time.

In addition, the four ballistic missiles, apparently Scud ERs, launched on March 6, 2017, were launched simultaneously. Furthermore, in recent years, North Korea has conducted target practice combining SRBMs with various types of artillery. Through such launches, North Korea may be working to improve not only its research and development of ballistic missiles but also its actual operational capabilities.

Some have noted that a ballistic missile which appears to have been modified from the Scud missile launched in

May 2017 is equipped with a MaRV. Images of the 2019 ballistic missile launches published by North Korea show that the missiles were launched from different places and hit the specific target. This suggests that North Korea is aiming to enhance the accuracy of attacks by upgrading its existing ballistic missiles and developing new ballistic missiles.

Furthermore, in the short-range ballistic missile launches on November 28, 2019 and March 2, 2020, the interval between launching the two missiles on both occasions was estimated at less than 1 minute, suggesting that North Korea is trying to improve the continuous fire capability required for saturation attacks and the like.

Thirdly, North Korea appears to be seeking to improve its ability to conduct surprise attacks by enhancing secrecy and instantaneity to make it difficult to detect signs of a launch.

Using a TEL or submarine, a ballistic missile that can be launched from any point, makes it difficult to detect signs of it in advance. North Korea has repeatedly launched ballistic missiles from TELs and SLBMs. Furthermore, since September 2021, it has also fired rail-launched ballistic missiles.

In addition, particularly since 2019, North Korea has repeatedly launched ballistic missiles that appear to have used solid fuel. It is therefore believed that North Korea is proceeding with the development of solid-fueled ballistic missiles. Generally, solid fuel-propelled ballistic missiles are not only relatively easier to store and handle, but are also preloaded with solid fuel. Therefore, in comparison to liquid fuel-propelled missiles, they can be launched instantly, and the signs of their launch are more difficult to detect. Furthermore, they can be reloaded more quickly. In this respect, they are considered to be superior militarily. Such characteristics are expected to contribute to improving the ability to conduct surprise attacks.

Fourthly, North Korea is advancing the development of ballistic missiles that fly at low altitudes with irregular trajectories in an attempt to breach other states' missile defense networks. SRBM A and SRBM B are believed to be capable of flying at lower altitudes than conventional ballistic missiles with irregular trajectories. In addition, rail-launched ballistic missiles and new types of SLBMs launched after 2021 all have external similarities with SRBM A and fly with irregular trajectories.

Furthermore, since September of the same year, North Korea has also repeatedly launched what it calls “hypersonic missiles.” In this way, North Korea is believed

to be focusing on missile development to breach missile defense networks.

Fifthly, North Korea may be attempting to diversify the forms of launches. It has been confirmed that the June 22, 2016, May 14, July 4, July 28, and November 29, 2017, October 2, 2019, and January 30, February 27, March 5, March 24, May 4, and May 25, 2022 ballistic missile launches were with lofted trajectories, in which missiles are launched to high altitudes at higher angles than normal. Generally, when a launch is made with a lofted trajectory, interception is considered to be more difficult.

In this way, North Korea is continuously proceeding with ballistic missile development at an extremely rapid pace. In particular, North Korea has been focusing on more advanced related technologies to breach missile defense networks in recent years, including successively launching ballistic missiles that use solid fuel and fly at lower altitudes than conventional ballistic missiles and with irregular trajectories. There are concerns that such advanced technologies will be applied to longer-range missiles.

North Korea is relentlessly pursuing increasingly complex and diverse modes of attack and is steadily strengthening and improving its attack capabilities. These enhancements in its capabilities make early detection of the signs of a launch and the interception of the missiles more difficult, thereby posing new challenges for the collection of information, early warning, and interception postures of relevant states, including Japan. It is necessary that we continue to carefully monitor moves by North Korea regarding its ballistic missile development.

(4) Future Trends in Weapons Development

At the 8th Congress of the KWP in January 2021, North Korea stated that it would increase “nuclear war deterrent” and develop “the most powerful military strength.” North Korea also specifically mentioned the development of various weapons as its future goals and showed a stance of enhancing its military power. It is believed that the “five-year plan for the development of the defence science and the weapon system” was presented at this time.²⁸

With regard to nuclear weapons and missiles, North Korea stated that it had developed “ultra-modern tactical nuclear weapons, including intermediate-range cruise

missiles.” It also referred to the development of “tactical nuclear weapons” as further advancement of nuclear technology, miniaturization and weight reduction of nuclear weapons, and development of tactical weapons. It also stated that it would accelerate the production of “super-sized nuclear warheads,” improve its hit rate on targets within a 15,000 km range, and upgrade its “preemptive and retaliatory nuclear strike capabilities.” In addition, North Korea mentioned the acceleration of research and development of multi-warhead technology, “hypersonic gliding flight warheads,” nuclear-powered submarines, and solid fuel-propelled ICBM, demonstrating its stance of relentlessly pursuing increasingly complex and diverse modes of attack.

Besides the nuclear and missile capabilities, development of reconnaissance means, including military reconnaissance satellites and unmanned aerial vehicles, was also mentioned.

Since September of the same year, North Korea has launched missiles including the ones it called “hypersonic missiles,” as if to actually implement the process of the development plan presented at the Congress of the KWP. In addition, what appeared to represent several weapons mentioned at the Congress of the KWP were displayed at the Defence Development Exhibition “Self-Defence-2021” held in October of the same year, demonstrating North Korea’s stance of continuously strengthening its military capabilities. In September of the same year, Vice Department Director of the Central Committee of KWP Kim Yo-jong stated, “What we did is part of normal and self-defensive action to carry out the key task for the first year of the five-year plan.” North Korea is expected to continue to develop the various weapons and other items mentioned in the plan and focus on achieving its goals.

In addition, following the February 27 and March 5, 2022 launches of ICBM-class ballistic missiles it claims were “reconnaissance satellite” development tests, North Korea publicly announced that Chairman Kim Jong-un had actually inspected a facility related to the “reconnaissance satellites,” during which he stated that the objective of the military reconnaissance satellites is to obtain real-time military information on South Korea, Japan, and the Pacific Ocean, that a large number of reconnaissance satellites will be deployed during the period of the “five-year plan,” and

²⁸ There was no direct reference to the name “five-year plan for the development of the defence science and the weapon system” in North Korea’s announcement at the Congress of the KWP in January 2021. However, when there was an announcement of the launch of a long-range cruise missile on September 13 of the same year, the North Korean media mentioned it publicly for the first time by stating that this missile development project was significant for “meeting the key target of the five-year plan for the development of the defence science and the weapon system presented at the 8th Congress of the KWP.”

The acceleration in the development of weapons on the Korean Peninsula

At the 8th Congress of the Korean Workers' Party (KWP) held in 2021, Chairman Kim Jong-un mentioned the specific goals of making nuclear weapons smaller and lighter, developing tactical nuclear weapons, "super-large nuclear warheads," "hypersonic gliding flight warheads," solid fuel-propelled intercontinental ballistic missiles (ICBM), and unmanned reconnaissance aircraft, as well as possessing nuclear-powered submarines and military reconnaissance satellites, as "core plan and strategic tasks of crucial importance in rapidly developing and strengthening the national defence industry." He also announced his intention to strengthen military power. According to a later announcement, the "Five-Year Plan for the development of the defence science and the weapon system" was presented at the Congress. The series of goals mentioned by Chairman Kim Jong-un are believed to be related to this plan.

In fact, North Korea mentioned the Five-Year Plan in its announcement after test-firing its new long-range cruise missiles and the missiles referred to as "hypersonic missiles" in the same year or later, as well as the "Hwasong-17" ICBM-class ballistic missiles as an important test of the development of "reconnaissance satellites." As per Vice Department Director of the Central Committee of the KWP Kim Yo-jong's statement in September 2021 that "normal and self-defensive action to carry out the key task for the first-year" of the plan, North Korea seeks to normalize these actions and make them fait accompli as "self-defensive" actions. Amid a seeming lack of progress having been made in dialogues with both the United States and the ROK, North Korea is also focusing on the research and development of related technologies, as well as the improvement of operation capabilities in line with the Five-Year Plan.

North Korea held the Defence Development Exhibition "Self-Defence 2021" in October 2021. At the exhibition, North Korea not only exhibited missiles whose launches have already been confirmed, but also showcased exhibits seemingly showing a variety of missiles whose launches were newly announced in 2021 or later, such as the "Hwasong-17" ICBM-class ballistic missile, the missiles referred to as "hypersonic missiles," rail-launched ballistic missiles, new submarine-launched ballistic missiles (SLBM), and long-range cruise missiles. Also

on show was what appears to be a possible new SLBM "Pukguksong-5", which has been seen at previous military parade. Since Chairman Kim Jong-un announced his intention to continue building up military power at the opening ceremony of the exhibition while touching on the Five-Year Plan, it is likely that North Korea will continue to repeatedly launch many types of missiles to achieve the goals of the plan.

Meanwhile, on September 15, 2021, the date on which North Korea fired ballistic missiles, the ROK announced that it had conducted the first test launch of SLBM whose development and possession had not been revealed previously, and further, that it had also been successful in developing and testing several new types of missiles. Then President Moon Jae-in stated that these missile tests had been conducted in accordance with the ROK's Missile Capability Buildup Plan. At the same time, he also revealed his stance towards countering North Korea, mentioning that the country "will continuously build up diverse missile capabilities in order to counter and overwhelm North Korea's asymmetrical capabilities." Boosted by the announcement of the termination of the U.S.-ROK Missile Guidelines in May 2021, which had restricted the range and warhead weight of ROK missiles, it appears that the ROK intends to further diversify its missile capabilities and increase missile range, as also laid out in the 2022-2026 Mid-term Defense Plan released in September that same year. In addition, the ROK plans to acquire the latest arms, such as new Aegis ships and stealth fighters, along with steadily building up military capability by focusing on the domestic production of many types of arms, such as next-generation fighters, submarines, light aircraft carriers, anti-ballistic missiles, and the Korean Iron Dome to intercept North Korean long-range artillery.

In response to this move, Chairman Kim Jong-un has claimed that the ROK is "breaking the military equilibrium in the region of the Korean Peninsula." At the same time, he has also demonstrated his stance of combining a hard and a soft approach, including stating that the building up of North Korean military power is not targeted at the ROK. It is necessary to closely monitor the military situation on the Korean Peninsula and changes in inter-Korean relations.

The military goals presented by Chairman Kim Jong-un at the 8th Congress of the KWP (January 2021)

- Further advancement of nuclear technology
- Further development of smaller and lighter nuclear weapons for tactical uses
- Continuous promotion of the production of super-sized nuclear warheads
- Advancement of nuclear preemptive and retaliatory strike capabilities by further improving the accuracy rate of striking any strategic targets within a range of 15,000 km with pinpoint accuracy
- Development and introduction of "hypersonic gliding flight warheads" within a short time period
- Promotion of underwater and land-based solid fuel-propelled intercontinental ballistic missile development projects
- Possession of nuclear-powered submarines and underwater-launched nuclear strategic weapons
- Operation of military reconnaissance satellites in the near future
- Development of various reconnaissance means, including unmanned reconnaissance aircraft capable of reconnoitering up to 500km deep into the front

that the Sohae satellite launching station in Tongch'ang-ri district will be renovated and expanded in order to do so.

In light of the situation above, it will be required to continue paying close attention with great interest to the trend of North Korea's weapon development.

4 Internal Affairs

(1) Developments Related to the Kim Jong-un Regime

In North Korea, the power base centered on Chairman Kim is being solidified. The constitution was amended in 2019, strengthening Chairman Kim's authority through such provisions as the stipulation that the Chairman of the State Affairs Commission is "the supreme leader of the Democratic People's Republic of Korea who represents the state." It is pointed out that North Korea is run under the leadership of the KWP. In January 2021, the 8th Congress of the KWP was held and Chairman Kim was appointed general secretary of the KWP.

On the other hand, since 2020, cases have begun to be seen of senior party officials providing "guidance" during site inspections and various meetings, which had previously been performed only by Chairman Kim, suggesting that some authority may have been delegated to senior officials. Chairman Kim appears to be aiming for control by creating a sense of tension through the demotion and promotion of senior officials in a short period of time. It is believed that uncertainty is arising, including over the possibility of North Korea turning to military provocations without making adequate diplomatic considerations, with senior officials unable to dispute the decisions of Chairman Kim.

It has also been pointed out that amid the difficult economic and food situation, the government is wary of social unrest caused by the influx of information from abroad and is further strengthening its ideological control. This is notable from the perspective of the stability of the regime.

(2) Economic Conditions

In the economic domain, North Korea has been facing

chronic stagnation and energy and food shortages due to the vulnerability of its socialist planned economy and diminishing economic cooperation with the former Soviet Union and East European countries following the end of the Cold War.²⁹

Furthermore, the strengthening of sanctions by states including Japan and the United States and the sanctions of the related UN Security Council resolutions in response to the implementation of nuclear tests and missile launches can be assumed to have had a certain effect, when considered together with the severe economic situation of North Korea.

Additionally, since 2020, COVID-19 infections and natural disasters, in addition to sanctions, seem to be having a significant impact on North Korea's economy. At the 8th Congress of the KWP in January 2021, Chairman Kim remarked that, due to "unexpected challenges," "the objectives for the growth of the national economy fell a long way short of implementation and consequently the people's living standards could not be improved remarkably." He stated that the "five-year plan for the national economic development" must be executed going forward.

In October of the same year, Chairman Kim referred to the "efficient five-years in boosting the national economy and solving the people's food, clothing, and housing problems" and to "building a powerful socialist nation envied by the world." North Korea is believed to be placing importance on rebuilding its economy. Nevertheless, as North Korea is unlikely to carry out any structural reforms that could lead to the destabilization of its current ruling system, it faces various challenges in making fundamental improvements to its current economic situation.

North Korea is presumed to be evading the UN Security Council sanctions by conducting ship-to-ship transfers prohibited by the UN Security Council resolutions.³⁰ The final report of the UN Security Council's Panel of Experts assisting the North Korea Sanctions Committee ("Final Report of the Panel of Experts submitted pursuant to resolution 2569 (2021)"), released in April 2022, points out that, during the January-September period in 2021, North Korea illicitly imported a volume of petroleum products that exceeded the annual aggregate 500,000-barrel cap

²⁹ In recent years, North Korean fishing boats and Chinese fishing boats have been conducting illegal operations within Japan's exclusive economic zone (EEZ) surrounding Yamato tai, creating a situation that threatens the safety of Japanese fishing boats operating in the EEZ. In this sea area, the Fisheries Agency and the Japan Coast Guard in cooperation crack down on illegal operations by foreign fishing boats. See the Cabinet Office Annual Report, "The situation of the oceans and the implemented measures by the Government with regard to the oceans," the White paper on Fisheries and the Japan Coast Guard Report for further details of the control activities.

³⁰ Between the beginning of 2018 and the end of March 2022, MSDF patrol aircraft and ships have observed 24 cases in which a North Korean-flagged tanker and a foreign-flagged vessel were anchored side-by-side on the high seas. As a result of comprehensive judgment by the government, there are strong suspicions that the observed vessels were engaging in illicit ship-to-ship transfers. For details of these cases and information about Japan's response, see Part III, Chapter 1, Section 1.

Fig. I-3-4-6

Sanctions based on UN Security Council Resolutions against North Korea

Main content

Items	Sanction content	Related resolution
Crude oil	Restriction of annual supply to 4 million barrels or 525,000 tons	No. 2397 (December 2017)
Petroleum refined products	Restriction of annual supply to 500,000 barrels	No. 2397 (December 2017)
Coal	Total ban on imports from North Korea	No. 2371 (August 2017)
Ship offloading (ship-to-ship transfer)	Banned	No. 2375 (September 2017)

Summary of recent UN Security Council resolutions on sanctions against North Korea

Date	Resolution	Catalyst event	Main content
2006.7.16	No. 1695	Seven ballistic missiles launches (2006/7/5)	Request transfer prohibition on related goods and funds for nuclear and missile plans
2006.10.15	No. 1718	First nuclear test (2006/10/9)	Prohibition on export and import of weapons of mass destruction related goods and large weapons
2009.6.13	No. 1874	Taepodong-2 launch (2009/4/5), second nuclear test (2009/5/25)	Adoption of financial regulations
2013.1.23	No. 2087	Taepodong-2 launch (2012/12/12)	Addition of six organizations and four individuals to sanctions
2013.3.8	No. 2094	Third nuclear test (2013/2/12)	Tougher financial regulations and obligation to conduct inspections of goods on ships suspected of transporting banned goods within one's own territorial waters
2016.3.3	No. 2270	Fourth nuclear test (2016/1/6), Taepodong-2 launch (2016/2/7)	Ban on air fuel exports and supply and ban on coal and iron ore exports by North Korea (excluding those for personal livelihood or unrelated to North Korea's nuclear and missile plans)
2016.11.30	No. 2321	Fifth nuclear test (2016/9/9)	Establishment of an upper limit on coal exports by North Korea (roughly \$400 million/7.5 million tons a year)
2017.6.3	No. 2356	Ballistic missile launches since 2016/9/9	Addition of four organizations and 14 individuals to sanctions
2017.8.6	No. 2371	ICBM-class "Hwasong-14" launch (2017/7/4 and 7/28)	Total ban on coal imports, total ban on iron and iron ore imports, and establishment of an upper limit on the total number of work permits for North Korean workers for the first time
2017.9.12	No. 2375	Sixth nuclear test (2017/9/3)	Addition of oil to supply restrictions for the first time, addition of textile products to the import ban, and ban on work permits for overseas workers
2017.12.23	No. 2397	ICBM-class "Hwasong-15" launch (2017/11/29)	Further supply restrictions in the oil area, expansion of the scope of bans on trade (exports/imports) with North Korea bans, and return of North Korean workers to North Korea

* Quotation marks indicate the names used by North Korea.

several times mainly by ship-to-ship transfers, although at a much lower degree as compared to previous years.

 See Fig. I-3-4-6 (Sanctions based on UN Security Council Resolutions against North Korea)

5 Relations with States and Regions

(1) Relations with the United States

In June 2018 at the first-ever U.S.-North Korea summit meeting, President Kim made clear his intention to work towards the complete denuclearization of the Korean Peninsula. However, the second U.S.-North Korea summit meeting in February 2019 ended without any agreement being reached between the two parties.

Subsequently, Chairman Kim indicated the stance that there would never be denuclearization on the Korean Peninsula until the United States rolled back its hostile

policy towards North Korea and that North Korea would maintain its nuclear deterrence against the United States' nuclear threat. In January 2021, he referred to the United States as the "principal enemy" while noting that the key to establishing a new U.S.-North Korea relationship would be the withdrawal of the hostile policy by the United States.

The Biden administration of the United States, which was inaugurated that same month, in April of the same year, announced that it had completed a review of its policy towards North Korea and that it would explore diplomacy with North Korea under a "calibrated, practical approach" with the continued goal of "complete denuclearization of the Korean Peninsula."

In response to these developments, in June of the same year, Chairman Kim stated that North Korea should "be prepared for both dialogue and confrontation" and needed "especially to get fully prepared for confrontation"

with regard to its policy towards the United States. In September of the same year, he stated that there had been no change in “U.S. military threats and hostile policy” and that the United States’ claims of “diplomatic engagement” and “dialogue without preconditions” were “a petty trick for hiding its hostile acts.” In October of the same year, Chairman Kim stated that there was not any reason to believe that the United States was not hostile, but also that “our arch-enemy is the war itself” and not a specific nation or power such as the United States.

Furthermore, in January 2022, Chairman Kim ordered North Korean officials to “promptly examine the issue of restarting all temporarily suspended activities” based on the assessment that the “hostile policy and military threat by the U.S. have reached a danger line that cannot be overlooked anymore” given that the U.S. has repeatedly conducted joint military exercises since the U.S.-North Korea summit meeting. North Korea has actually been launching ICBM-class ballistic missiles since February 2022, and following the launch on March 24 of the same year, stated that it would thoroughly prepare for a long-term confrontation with the U.S. In this way, North Korea has acted in contradiction to its decision to discontinue “inter-continental ballistic rocket test-fire” it itself announced in April 2018, and attention will be paid to future developments, including the possibility of further escalations of unilateral provocations.

(2) Relations with the ROK

In 2018, substantial progress was realized in inter-Korean relations. The three inter-Korean summit meetings led to an agreement on the “Panmunjom Declaration,” which confirmed, among other matters, that the two parties agreed to completely cease all hostile acts against each other in every domain, and confirmed the common goal of realizing a nuclear-free Korean Peninsula. The summit meetings also led to an agreement on the “Pyongyang Joint Declaration of September 2018,” which referred to the ending of military hostilities, and the “Agreement on the Implementation of the Historic Panmunjom Declaration in the Military Domain,” which prescribed concrete measures to ease inter-Korean military tensions.

However, 2019 saw no major advances in inter-Korean dialogue and cooperation programs, while in 2020 there was a temporary increase in tension seen in the inter-Korean relationship. Since June of the same year, North

Korea has reacted to the distribution of flyers criticizing Chairman Kim by a North Korean defectors group. North Korea has also shown moves such as the explosion of the Inter-Korean Joint Liaison Office in Kaesong, and its announcement that it was considering (and later suspended) a military action plan that included the strengthening of military posture along the DMZ.

On the other hand, North Korea appears to be taking a carrot and stick approach to the ROK. In January 2021, at the 8th Congress of the KWP, Chairman Kim mentioned that depending on the attitude of the ROK, inter-Korean relations could return to a new starting point of peace and prosperity. In July of the same year, inter-Korean communication lines, which had been cut off for more than a year, were restored (they were later cut off in August of the same year, but then restored again in October of the same year). In addition, in September of the same year, in response to the “end-of-war declaration” proposed by then ROK President Moon Jae-in at the UN General Assembly that month, Chairman Kim first stated that the ROK should withdraw its “partial view, unfair and double-dealing attitude and hostile viewpoint and policies” towards North Korea, while expressing his belief that the future of inter-Korean relations depends on the attitude of the ROK side. Furthermore, in October of the same year, he stated that tensions on the Korean Peninsula would not arise if the ROK did not meddle, and that defense forces were not being strengthened with the ROK as the target, noting that their history of “having recourse to arms against the fellow countrymen” must not be repeated.

Movements in the future of inter-Korean relations, including the policy toward North Korea of the Yoon Suk-yeol administration, inaugurated in May 2022, and North Korea’s reaction, will be closely watched.

(3) Relations with Other States

(i) Relations with China

China is a vital political and economic partner for North Korea and maintains a degree of influence on North Korea. The China-North Korea Treaty on Friendship, Cooperation and Mutual Assistance, which was concluded in 1961, is still in force. In addition, China is currently North Korea’s biggest trade partner. In 2020, trade volume between China and North Korea was very large, accounting for over 90% of North Korea’s total trade (excluding trade between North Korea and the ROK),³¹ suggesting North Korea’s

31 According to an announcement by the Korea Trade-Investment Promotion Agency (KOTRA)

dependence on China.

In regard to the situation in North Korea and the nuclear issue, China has stated that the issues should be resolved through dialogue and consultations based on the concept of a “dual-track approach” (denuclearization of the Korean Peninsula and the transition from the armistice mechanism to a peaceful mechanism) and the principle of phased and synchronized actions. China also stated that it would like to play a constructive role in safeguarding peace and stability on the peninsula as well as realizing lasting peace. Amidst this, in October 2021, China submitted a draft UN Security Council resolution on North Korea jointly with Russia stating that North Korea had already taken many denuclearization measures and that there should be the adjustment of some sanctions concerning the economy and livelihoods.

Five China-North Korea summit meetings have been held since March 2018. In January 2021, Chairman Kim mentioned that those summit meetings had deepened “strategic communication” and “mutual understanding” between the two parties. In July of the same year, Chairman Kim and General Secretary Xi Jinping exchanged congratulatory messages on the occasion of the 60th anniversary of the China-North Korea Treaty on Friendship, Cooperation and Mutual Assistance. Chairman Kim stated that he would continue to constantly strengthen and develop North Korea-China relations, despite “the

hostile forces’ challenges and obstructive moves.”

(ii) Relations with Russia

Concerning North Korea’s nuclear issue, Russia, along with China, has expressed support for the denuclearization on the Korean Peninsula and early resumption of the Six-Party Talks. In October 2021, Russia and China jointly submitted the aforementioned draft UN Security Council resolution stating that restrictions should be reviewed in light of North Korea’s “path to denuclearization” and humanitarian situation.

At the 8th Congress of the KWP in January of the same year, Chairman Kim referred to laying “a cornerstone for the expansion of friendly relations with Russia” as the outcome since the 7th Congress of the KWP. Amid the Russia’s aggression of Ukraine in and after February 2022, North Korea voted against the UN General Assembly’s resolution calling for the immediate withdrawal of Russian troops from the country and claims that the United States and other Western countries are to blame for the conflict in Ukraine, showing its stance of defending Russia.

(iii) Relations with Other States

It has been reported that North Korea has cooperative relationships with states such as Iran, Syria, and Myanmar in military affairs including arms trade and military technology transfer.

 Chapter 4, Section 6-4 (Growing Concerns about Transfer and Proliferation of WMDs and Other Technologies)

2 The ROK and the U.S. Forces Korea

1 General Situation

The Yoon Suk-yeol administration was inaugurated in May 2022 in the ROK. It has stated its objective of achieving sustainable peace on the Korean Peninsula through the complete and verifiable denuclearization of North Korea. On top of this, the new administration has indicated that it will respond firmly to North Korea’s nuclear and missile threats and act decisively against “illegal and unreasonable behavior” in line with its principles, though it has also indicated it will work to resolve inter-Korean issues through dialogue. Attention must be paid to the impact the inauguration of the new administration will have on inter-Korean relations moving forward.

The U.S. Forces, mainly the Army, have been stationed in the ROK since the ceasefire of the Korean War. The ROK has established very close security arrangements with the

United States primarily based on the U.S.-ROK Mutual Defense Treaty. The U.S. Forces Korea have been playing an important role in securing peace and stability of the region such as playing a vital role in deterring the outbreak of largescale armed conflict on the Korean Peninsula. The Yoon Suk-yeol administration has indicated that it intends to develop the U.S.-ROK alliance into a comprehensive strategic alliance, emphasizing the importance it places on relations with the U.S.

2 Defense Policies and Defense Reform of the ROK

The ROK has a defensive weakness, namely, its capital Seoul, which has a population of approximately 10 million, is situated close to the DMZ. The ROK has set the National Defense Objective as follows: “to protect the country from

external military threats and invasions, to support peaceful unification, and to contribute to regional stability and world peace.”

As one of the “external military threats,” the ROK, in its Defense White Paper, used to designate North Korea as the “main enemy” or state that “the North Korean regime and its military will remain an enemy.” While continuing to describe North Korea’s WMDs as a threat to the peace and stability of the Korean Peninsula, the designation of North Korea as an enemy has been eliminated since the former Moon Jae-in administration began. Instead, the white paper states as follows: “The ROK armed forces considers any force that threatens and violates the sovereignty, territory, people and properties of the ROK as an enemy.” The Yoon Suk-yeol administration, however, has indicated that it will consider once again stating that “the North Korean regime and its military will remain an enemy” in the Defense White Paper.

The ROK has continued to undertake reforms of its national defense. In recent years, in July 2018, the ROK released the “Defense Reform 2.0,” which has set the following three main goals: making omni-directional response to security threats, enhancing military power based on advanced science and technology and developing armed forces appropriate for a developed country. This plan calls for continued promotion of efforts to secure combat capabilities necessary for responding to the threat from North Korea and also includes the reduction of the troops and the mandatory military service period.

3 Military Posture of the ROK

The ROK’s military capacity is as follows. The ground forces consist of 19 army divisions with approximately 420,000 personnel and 2 marine divisions with approximately 29,000 personnel; the naval forces consist of approximately 220 vessels with a total displacement of approximately 280,000 tons; and the air forces (Air Force and Navy combined) consist of approximately 660 combat aircraft.

The ROK has been modernizing its military forces- not only its Army but also its Navy and Air Force- in order to establish an omni-directional defense posture to deal with future potential threats, not least threats from North Korea. The Navy has been introducing submarines, light aircraft carriers, and domestically built destroyers. The Air Force completed its program introducing 40 F-35A fighters by January 2022 and is also promoting the introduction of



SLBM launch test by the ROK (September 15, 2021) [AFP=Jiji]

domestically built fighters.

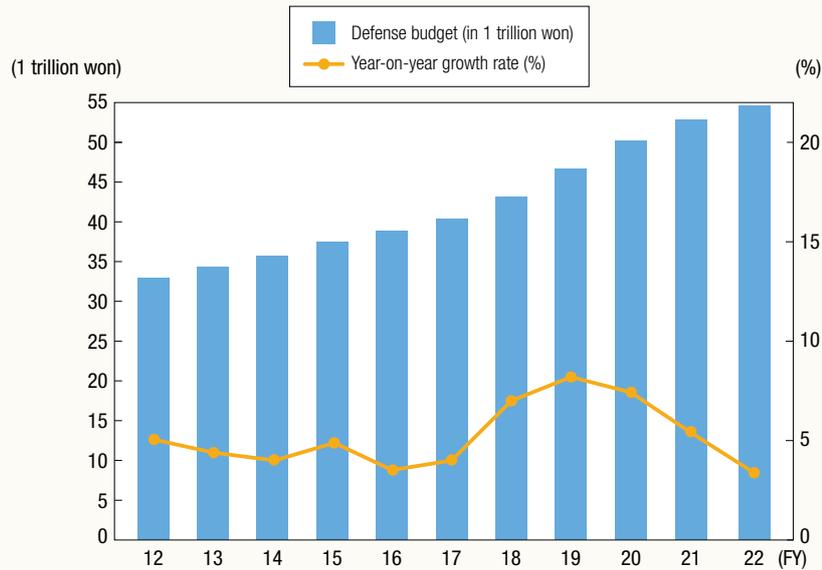
In addition, the then Moon Jae-in administration made a conceptual shift from its “three-axis” system for responding to nuclear and missile threats from North Korea (“Kill Chain,” “Korea Air and Missile Defense” (KAMD), and “Korea Massive Punishment and Retaliation” (KMPR)) to establishing “strategic strike system” and the KAMD. The scope was also updated from covering the response to North Korean missile threats to covering the response to security threats from all directions, though the Yoon Suk-yeol has signaled moves to revive the traditional “three-axis” system.

In regard to the ROK’s missile development, the missile guidelines agreed upon by the U.S. and ROK governments in 1979 have placed restrictions on the range and warhead weights of the ROK’s missiles. However, in November 2017, the ROK government announced that it had revised the guidelines to eliminate the warhead weight limits on ballistic missile in order to enhance deterrence against military provocation by North Korea. Furthermore, at the May 2021 U.S.-ROK summit meeting, there was an announcement on the conclusion of the guidelines, which limited the range of ballistic missiles to 800 km.

In terms of ballistic missiles, the ROK appears to have operationally deployed Hyunmoo-2 missiles with an estimated range of 300-800 km and is believed to have made a successful test launch of Hyunmoo-4 with a two-ton warhead weight and 800 km firing range in 2020, following the abolition of warhead weight limits in the 2017 revision of the missile guidelines. In addition, in September 2021, the ROK government announced that it had successfully conducted a test launch of an SLBM from the Dosan Ahn Changho submarine. By developing and possessing SLBMs, the ROK is believed to be planning to augment and diversify its own attack measures with

Fig. I-3-4-7

Changes in the ROK's Defense Budget



Notes: According to the website of the Ministry of National Defense of ROK (accessed in December 2021)

conventional forces without relying on the United States and to improve survivability.

With regard to cruise missiles, the ROK appears to have operationally deployed the Hyunmoo-3 surface-to-surface cruise missile, which is believed to have a range of about 500-1,500 km, and the Haeseong series ship-to-ship/ ship-to-surface cruise missiles, which are believed to have a maximum range of 1,000-1,500 km.

Furthermore, the ROK has been actively exporting equipment in recent years. It is believed to be diversifying its export items, including aircraft, naval vessels, self-propelled artillery guns, and interceptor missiles. In 2017, the ROK's exports reached approximately US\$3.2 billion on a contract value basis, about a 13-fold increase over the 11 years since 2006. Since then, although annual export records have not been published, the number of large export contracts has been increasing recently, including the export contract signed with the UAE in January 2022 for an interceptor missile system, the largest ever for a single piece of domestically produced equipment (approximately 4.18 trillion Korean won).

Defense spending in FY2022 (regular budget) increased by about 3.4% from the previous fiscal year to nearly KRW 54.6112 trillion, marking the 23rd consecutive year of increases since 2000. According to the Defense Reform 2.0, the ROK will increase the defense budget 7.5% on an

annual average.

 See Fig. I-3-4-7 (Changes in the ROK's Defense Budget)

4 U.S.-ROK Alliance and U.S. Forces Korea

The United States and the ROK have taken various steps to deepen the U.S.-ROK Alliance in recent years. The two countries regularly confirm the strengthening of the U.S.-ROK Alliance at the summit level.

As specific undertakings, the two countries signed the U.S.-ROK Counter-Provocation Plan for dealing with North Korea's provocations in March 2013. They also approved the Tailored Deterrence Strategy, designed to enhance deterrence against North Korean nuclear and other WMD threats, at the 45th Security Consultative Meeting (SCM) in October of the same year.

At the 46th SCM in October 2014, the two countries agreed on "Concepts and Principles of ROK-U.S. Alliance Comprehensive Counter-missile Operations (4D Operational Concept)" to tackle North Korean ballistic missile threats. At the 47th SCM in November 2015, the implementation guidance on the 4D Operational Concept was approved.

Additionally, after North Korea went ahead with its nuclear test in January 2016, the Terminal High Altitude

Area Defense (THAAD)³² was temporarily deployed by the U.S. Forces Korea in September 2017. In addition, in a U.S.-ROK summit meeting also held in September, the enhanced deployment of U.S. strategic assets in and around the ROK on a rotational basis was agreed.

Recently, at the 53rd SCM in December 2021, the United States and ROK expanded their Alliance from the Korean Peninsula and Northeast Asia to the Indo-Pacific region, approved new Strategic Planning Guidance (SPG) after not doing so for 11 years, and updated their operation plans based on the SPG. In regard to this, the United States and the ROK stated that this reflected “changes to the strategic environment,” including the North Korean threat. It has been pointed out that the background includes factors such as the increasing sophistication of North Korea’s nuclear and missile capabilities.

On the other hand, in regard to joint U.S.-ROK military exercises, the United States and the ROK have suspended large-scale maneuver exercises and reduced the scale of command exercises since 2018 in response to progress in dialogue with North Korea.³³ They have also reduced the scale of and postponed exercises since 2020 due to factors such as the impact of COVID-19.

Moreover, at the new year press conference in January 2021, then President Moon Jae-in mentioned in relation to U.S.-ROK joint military training that North Korea would react sensitively to every exercise, and that it would be possible to have a discussion with North Korea through the Inter-Korean Joint Military Committee. However, even after 2021, regular U.S.-ROK joint command exercises and other exercises have been conducted on a reduced scale.

At the same time, the two countries have worked to deal with such issues as the transition of operational control (OPCON) to the ROK³⁴ and the realignment of U.S. Forces Korea.

For the transition of OPCON to the ROK, the roadmap for the transfer “Strategic Alliance 2015” was established in October 2010. Aiming to complete the transition by December 1, 2015, the two countries have reviewed the approach of transitioning from the existing combined defense arrangement of the U.S. and ROK Forces, to a new joint defense arrangement led by the ROK Forces and

supported by the U.S. Forces.

Nevertheless, based on the increasing seriousness of North Korea’s nuclear and missile threats, the two sides decided at the 46th SCM to re-postpone the transition of OPCON, and to adopt a conditions-based approach, i.e., implementing the transition when conditions such as the ROK Forces’ enhanced capabilities are met. At the 50th SCM in October 2018, it was decided that following the transition of OPCON, a ROK military officer will serve as commander of the Future Combined Forces Command, replacing the current arrangement of a U.S. military officer serving as the commander of the U.S.-ROK Combined Forces.

In August 2019, the Initial Operating Capability (IOC) verification regarding the ROK Forces’ operational capabilities was conducted during combined command post exercises. At the 51st SCM in November 2019, the two parties concurred that the exercise had played an important role in verifying IOC and decided to pursue an assessment of Full Operational Capability for the Future Combined Forces Command in 2020. However, due to the impact of COVID-19 and other factors, the preliminary exercise was only conducted in the same year and in 2021. At the 53rd SCM in December 2021, it was decided that the FOC assessment would be conducted in 2022.

The ROK Forces plan to enhance and expand early the military capabilities leading the U.S.-ROK Alliance and defense capabilities needed to address North Korean nuclear and missile threat, which are required for the transition of OPCON, and accelerate the transition of OPCON through periodic evaluations of readiness.

With regard to the realignment of the U.S. Forces Korea, an agreement was reached in 2003 on the relocation of the U.S. Forces’ Yongsan Garrison located in the center of Seoul to the Pyeontaek area, south of Seoul, and on the relocation of the U.S. Forces stationed north of the Han River to the south of the river. Subsequently, however, the agreement has been partially revised, due to various factors, including: in relation to the postponement of the transition of OPCON, it has been necessary for some U.S. Forces personnel to remain at Yongsan Garrison; and it was decided that the counter-fires forces of U.S. Forces Korea

32 A ballistic missile defense system designed to intercept short- and intermediate-range ballistic missiles in their terminal phase from the ground. It captures and intercepts targets at high altitudes outside of the atmosphere or in the upper atmosphere. See Part III, Chapter 1, Section 2 regarding the ballistic missile defense system

33 In regard to “Freedom Guardian” and “Key Resolve,” “new combined command post training” to replace these exercises have been conducted once in both the first and second half of the year starting in 2019.

34 The United States and the ROK have had the U.S.-ROK Combined Forces Command since 1978 in order to operate the U.S.-ROK combined defense system to deter wars on the Korean Peninsula and to perform effective combined operations in the case of a contingency. Under the U.S.-ROK combined defense system, OPCON over the ROK Forces is to be exercised by the Chairman of the Korea Joint Chiefs of Staff in peacetime and by the Commander of the U.S. Forces Korea, who concurrently serves as the Commander of the Combined Forces Command, in a contingency.

would remain in their location north of the Han River to counter the threat of North Korea's long-range rocket artillery.

In July 2017 the U.S. 8th Army headquarters relocated to the Pyeontaek area, and in June 2018 the headquarters of U.S. Forces Korea and UN Command also relocated to the same area. The realignment of U.S. Forces Korea could have a significant impact on U.S. and ROK defense postures on the Korean Peninsula, and as such it will be necessary to follow future developments closely.

Concerning defense burden sharing, whereby the ROK government bears a portion of the total stationing costs of the U.S. Forces Korea to ensure a stable stationing environment, in March 2021, the United States and the ROK reached an agreement on the 11th Special Measures Agreement (SMA). This agreement is valid for six years from 2020 to 2025. The total amount for FY2020 remained unchanged from the FY2019 level and increased by 13.9% for FY 2021 compared to FY2020, while for FY2022-FY2025 the rate of increase in the ROK defense spending from the previous year will be applied.

5 Relations with States and Regions

(1) Relations with China

China and the ROK have made continuous efforts to strengthen their relations. Meanwhile, outstanding issues have emerged between China and the ROK. China has protested that the deployment of THAAD to U.S. Forces Korea would undermine China's strategic security interests. In October 2017 the governments of China and the ROK announced that they had agreed to utilize military channels to reach a mutual understanding relating to China's concerns about THAAD. In regards to this point, President Yoon Suk-yeol pledged during the presidential election to deploy additional THAAD units while stating that he would achieve a relationship with China that is based on "mutual respect," and future developments in China-ROK relations will be closely watched.

(2) Relations with Russia

The ROK and Russia have agreed on cooperation in the areas of military technology, defense industry, and military supplies. In June 2018, then-President Moon Jae-in visited Russia as a state guest, becoming the first ROK president to do so in 19 years. In August 2018, defense strategic dialogue was held, and it was agreed that the dialogue would be upgraded to the vice minister

level. Furthermore, in November 2021, the governments of the two countries agreed to establish a hotline between their navies and air forces. Despite these circumstances, the ROK has implemented sanctions against Russia and provided military supplies and other resources to Ukraine in a show of solidarity with the international community following the Russia's aggression of Ukraine since February 2022. On the other hand, the ROK has also shown a degree of caution, expressing reluctance to provide anti-aircraft missiles and other items requested by the Ukrainian side, and it remains to be seen how the ROK will respond moving forward in light of the situation in Ukraine as it considers its relationship with Russia.

Section 5

Russia

1 General Situation

In April 2021, amid reports of a buildup of Russian military units around Ukraine's border and the Crimean Peninsula which was illegally annexed by Russia, President Putin, who has been seeking the revival of Russia as a strong and influential power, stated in his annual presidential address to the Federal Assembly of Russia that "Russia will always find a way to defend its stance." Using the new expression "red line," he asserted that Russia would not tolerate a situation in which the core interests of its security were threatened.

At the U.S.-Russia summit meeting held in June 2021, which was President Biden's first in-person meeting after his inauguration, the United States and Russia agreed to begin a new Strategic Stability Dialogue. At the press conference following the meeting, President Putin expressed the view that almost nothing remained in the sphere of strategic stability except for the New Strategic Arms Reduction Treaty (New START), and that Russia's foreign policy, which appeared unpredictable to Western countries, was merely a response to threats against the country.

Russia's National Security Strategy, which was revised in July 2021, stated that a deliberate containment policy against Russia had been conducted, and indicated the awareness of the existence of external threats and of Russia as a "strong state" that would not succumb to them.

Since the autumn in 2021, Russian military units again gathered around Ukraine's border and the illegally-annexed Crimean Peninsula and repeatedly conducted exercises. The United States and other related countries are concerned about the possibility of a Russian invasion of Ukraine. They have requested Russia to ease tensions through diplomatic efforts, and shown a stance of supporting Ukraine by means other than deploying troops to Ukraine, such as the provision of weapons. At the expanded meeting of the Foreign Ministry Board in November 2021, President Putin again used the expression "red line" in connection with the situation in Ukraine and the Black Sea as well as NATO's eastern expansion. He pointed out the need for long-term guarantees that ensure Russia's security in the western border region. In December of the same year, the Russian Ministry of Foreign Affairs released its own draft of a treaty and agreement with the United States and NATO on issues such as stopping the eastern expansion of NATO. Russia asserts that it will not



President Putin (center), Defense Minister Shoigu (right), and Chief of the General Staff of the Russian Armed Forces Gerasimov (left) observing the Russia-Belarus strategic exercise "Zapad 2021" in September 2021 [Presidential Executive Office of Russia]

allow Ukraine and other former Soviet Union countries to become new NATO members. However, this view differs widely from that of the United States and other NATO members that Russian intervention in the security policies of other countries is unacceptable. During the subsequent talks between Russia and western countries, Russian military units were further concentrated in the vicinity of Ukraine and other areas. On February 24, 2022, Russia issued a statement by President Putin stating that Ukraine had crossed the "red line" by making progress in cooperation with the United States and other NATO countries, and launched a full-scale invasion of Ukraine, purportedly to conduct a "special military operation" to disarm Ukraine and protect the residents of the "Donetsk People's Republic" and "Luhansk People's Republic", the pro-Russian separatist forces in eastern Ukraine. The Russian invasion of Ukraine undermines the sovereignty and territorial integrity of Ukraine, and it is also a serious violation of international law and the Charter of the United Nations, which forbid the use of force. Unilaterally changing the status quo by force in this way shakes the foundations of the international order, including Asia as well as Europe.

In addition, in the military field, Russia has clearly shown its stance of making continuous efforts to modernize its strategic nuclear weapons, and has also been exerting influence in the Mediterranean Sea region through its military intervention in Syria and involvement in the internal conflict in Libya. In regard to Russian forces in the vicinity of Japan, there has been a trend toward the introduction of new equipment and

increased activity in recent years. In addition, Russia has been making moves to strengthen cooperation with China, such as joint flights with bombers and joint voyages with vessels of the Chinese forces. Due to this, it is necessary to monitor with concern the positioning and trends of the Russian forces in the Far East region, including the Northern Territories, while also

keeping in mind the developments in the invasion of Ukraine.

See Chapter 2, Section 2-2 (The Situation Surrounding Ukraine after the Spring of 2021)
Chapter 2, Section 3 (How Russia Started an Aggression against Ukraine and an Outlook on It)

2 Security and Defense Policies

1 Strategic and Policy Documents

Russia set out its objectives and strategic priorities of domestic and foreign policies in the “National Security Strategy” revised in July 2021.

The National Security Strategy states that Russia’s policies which serve now to strengthen its defense capabilities, domestic unity, and political stability, and modernize its economy, and develop its industrial base, have strengthened Russia as a sovereign state capable of pursuing an independent domestic and foreign policy and effectively opposing external pressures. This indicates Russia’s awareness of the existence of external threats and its belief that it is a “strong state” that will not succumb to them. It also states that NATO’s military activities around Russia are a military threat and that the deployment of U.S. intermediate- and short-range missiles in Europe and the Asia-Pacific region is a threat to strategic stability.

In the defense domain, the Strategy commits to giving continued priority to the role fulfilled by Russia’s military force, and to ensuring strategic deterrence and preventing military conflict by maintaining a sufficient level of nuclear deterrent capability and combat readiness of Russian military forces, including the Armed Forces of the Russian Federation (AFRF).

The Military Doctrine, revised in December 2014 as a document substantiating the principles of the National Security Strategy in the military sphere, states the existing view that while the probability of an outbreak of a large-scale war is decreasing, military risks to Russia are increasing, such as the movement of NATO’s military infrastructure closer to Russia’s borders including the expansion of NATO, and the establishment and deployment of strategic missile defense (MD) systems. In addition, the doctrine expresses growing alarm, defining the following as new military risks: NATO’s military buildup; the realization of the U.S. Global Strike concept; the rise of global extremism (terrorism); the formation of governments in neighboring countries that carry

out policies threatening Russia’s interests; and the incitement of ethnic, social, and religious confrontations in Russia.

In addition, the doctrine raises characteristics of modern military warfare as being the massive use of precision weapons, hypersonic weapons, electronic warfare equipment, all types of autonomous vehicles, and the like, as well as the phenomena of automation and centralization of troops and weapon operations through a network of automatic command and control systems. In addition, without using the phrase “hybrid warfare,” the doctrine also points out the integrated use of military force and political, economic, informational and other non-military measures, as well as participation in hostilities by irregular armed groups and private military companies.

The doctrine positions nuclear weapons as an essential component for preventing the outbreak of nuclear wars and military conflicts that use conventional weapons. Regarding the criteria for its use, it states Russia reserves the right to use nuclear weapons in retaliation not only for the use of nuclear or other WMDs, but also in the event of invasion using conventional weapons, where the survival



An executive order from the President of Russia that approves the Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence (June 2, 2020)
[Presidential Executive Office of Russia]

of the country itself is imperiled.

In June 2020, for the first time, Russia released a policy document, “Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence,” which is equivalent to the so-called nuclear doctrine. Criteria for the use of nuclear weapons are the same as the criteria described in the military doctrine, but the document clarifies the conditions for Russia to newly proceed to the use of nuclear weapons. In the “Basic Principles,” it is explained that, in addition to the “individual states [...] that consider the Russian Federation as a potential adversary,” “military coalitions (blocs, alliances)” in which these countries participate are also subject to nuclear deterrence to clarify Russia’s “red lines.”

2 National Defense Budget

With regard to Russia’s defense budget, the amounts executed for FY2011-FY2016 showed year-on-year double-digit growth and reached 4.4% of GDP. After that, it has generally remained at a level of around 3% of GDP.¹

 See Fig. I-3-5-1 (Changes in Russia’s Defense Expenditure)

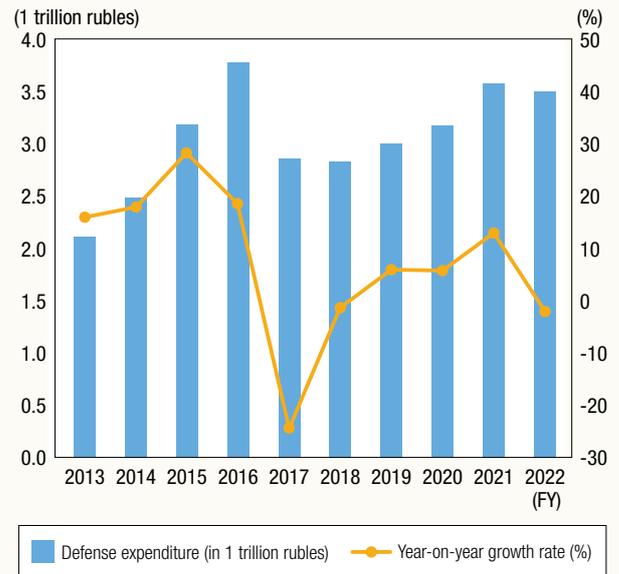
3 Military Reform

Russia has implemented full-scale military reform since 1997 by presenting the three pillars of reform: downsizing; modernization; and professionalization.

Regarding the downsizing of the military forces, it was decided that AFRF would have a strength of one million personnel as of 2016. Since December 2010, Russia reorganized its six military districts into four military districts (Western, Southern, Central and Eastern Districts). On this basis, Russia established a joint strategic command in each military district and is carrying out integrated operations of its entire military forces, such as Land Forces, Navy, and Aerospace Forces units under the control of the Military District Commander. In December 2014, the newly established position of the Northern Joint Strategic Command was given to the Northern Fleet belonging to the Western District to develop a joint-operations system in which the ground troops, the naval vessels, and the air and air defense units facing the Arctic are operated integrally. Based on this reorganization, the “four military districts and five Joint Strategic Command” system had been in operation. After January 2021, however, the Northern Fleet was designated as an independent military

Fig. I-3-5-1

Changes in Russia’s Defense Expenditure



Note: Data announced by the Russian Ministry of Finance and Federal Treasury (figures for FY2013-FY2021 are expenditures and figures for FY2022 are the budget amount).

administration division and given a position equivalent to a military district, which made the previous system become the “five military districts and five Joint Strategic Command” system. This change resulted in the establishment of a system in which the two aspects of military command and military administration were in agreement for the entire AFRF.

Regarding the modernization of the military forces, Russia has achieved its goal of increasing its percentage of new equipment to 70% by 2020. At the end of 2021, it was announced that the percentage reached 71% for conventional forces and 89% for strategic nuclear forces.

Regarding the professionalization of the military forces, in order to make the combat readiness of the permanent readiness units effective, Russia promotes the introduction of a contract service system which selects personnel who would serve under contracts from the conscripted military personnel. In 2015, the number of contract servicemen exceeded the number of conscripted personnel for the first time, and in 2020 reportedly the former nearly doubled the latter. On the other hand, with the procurement of new equipment, the shortage of contract servicemen with expert knowledge has been suggested.

¹ According to documents published by Russia’s Ministry of Finance and Federal Treasury

3 Military Posture and Trends

Russia's military forces are comprised of forces such as the AFRF, the Border Guard Service of the Federal Security Service of the Russian Federation (FSB), and the Federal National Guard Service of the Russian Federation. The AFRF consists of three services and two independent forces: Land Forces; Navy; Aerospace Forces; Strategic Missile Forces; and Airborne Forces.

In developing its military capabilities, after having been conscious of the United States, which it has confronted in the past, and ensured a balance in its nuclear forces, Russia is expanding equipment similar to that of advanced nations, such as land-attack cruise missiles capable of being precision-guided and unmanned vehicles, for its conventional forces that it perceives as inferior to those of advanced nations. As for its asymmetric responses, it is believed that Russia places importance on improving its so-called "A2/AD" capabilities through long-range surface-to-air and surface-to-ship missile systems and electronic warfare equipment.

 **See** Fig. I-3-5-2 (Location and Strength of Russian Military [image])

1 Nuclear Forces

Russia emphasizes its nuclear forces to secure its global position, to strike a balance with the nuclear forces of the United States and to supplement its inferiority in conventional forces. Russia is thus making efforts to maintain readiness.

Russia possesses ICBMs, SLBMs, and long-range bombers comparable to the United States in scale.

In 2011, Russia started the deployment of "Yars" ICBM, which is considered a multi-warhead version of the "Topol-M" ICBM. It is currently developing the "Sarmat" heavy ICBM, which is believed to be capable of carrying a warhead with the capability to breach missile defense systems. Five Borey-class SSBN vessels, which carry the new-type SLBM "Bulava," were commissioned. There are plans to deploy five such vessels each to the Northern Fleet and Pacific Fleet in the future. Russia also continues to carry out the modernization renovation of a Tu-95 and Tu-160 long-range bombers.

With respect to non-strategic nuclear forces, the Intermediate-Range Nuclear Forces (INF) Treaty signed

by the United States and the Soviet Union ended in August 2019. However, Russia has repeatedly expressed its stance of not manufacturing and not deploying short- and intermediate-range missiles targeting Europe and other regions, unless the United States deploys ground-launched short- and intermediate-range missiles. On the other hand, Russia is working to deploy missiles with various launch platforms such as the ground-launched missile system "Iskander," which is believed to be capable of carrying either conventional or nuclear warheads, the sea-launched cruise missile system "Kalibr," the air-launched cruise missile "Kh-101," and the air-launched ballistic missile "Kinzhal." Concerning the "Kalibr" SLCM system, in particular, Russia has been promoting the deployment of frigates and submarines capable of carrying this missile system in the Far East.

2 New Types of Weapons

Since 1999, NATO membership of Eastern European countries, the so-called "NATO's Eastward Expansion,"

ICBM "Sarmat"

[Specifications, performance]

Under development

[Description]

New heavy ICBM. Capable of carrying a broad range of warheads such as hypersonic warheads and of attacking targets via the North Pole or the South Pole with no substantial range limitation; Scheduled to be deployed in 2022.



[Russian Ministry of Defence]

Sea-launched cruise missile system "Kalibr"

[Specifications, performance]

Firing range: Submarine-launched type (anti-surface)
- approx. 2,000 km; Surface ship-launched type (anti-surface)
- approx. 1,500 km
Speed: Mach 0.8

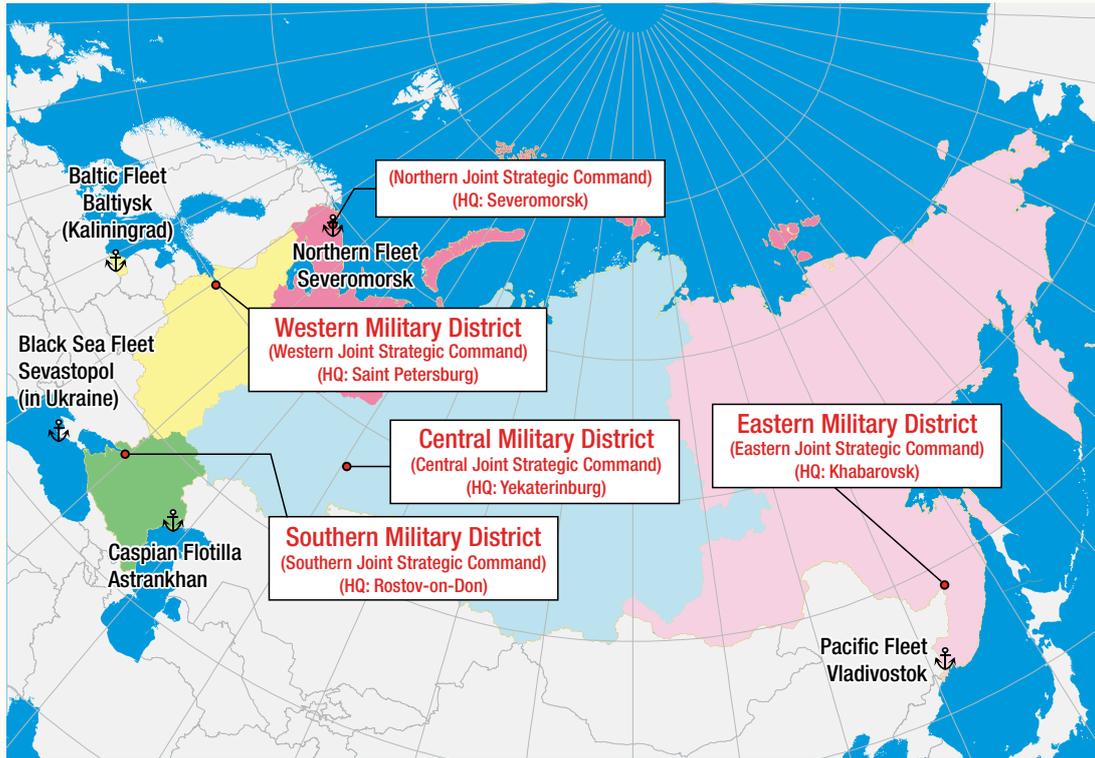


[Russian Ministry of Defence]

[Description]

Once used in operations in Syria. It can be loaded on various platforms and some suggest that it served as the basis for 9M729, which is a ground-launched intermediate-range cruise missile of the kind whose development and possession has been prohibited under the INF Treaty as alleged by the United States.

Fig. I-3-5-2 Location and Strength of Russian Military [image]



		Russia	
Total military forces		Approx. 900,000 troops	
Ground forces	Ground troops	Approx. 330,000 troops	
	Tanks	T-90, T-80, T-72, etc. Approx. 2,900 (Not including mothballed tanks. Approx. 13,000 including mothballed tanks)	
Maritime forces	Warships	1,170 vessels, Approx. 2,070,000 tons	
	Aircraft carriers	1 vessel	
	Cruisers	4 vessels	
	Destroyers	11 vessels	
	Frigates	19 vessels	
	Submarines	70 vessels	
		Marines	Approx. 35,000 troops
Air forces	Combat aircraft	1,530 aircraft	
	Modern fighter aircraft	MiG-29 × 109 Su-30 × 132 MiG-31 × 117 Su-33 × 17 Su-25 × 199 Su-34 × 125 Su-27 × 119 Su-35 × 97 (Fourth generation fighter aircraft: Total 915)	
	Bombers	Tu-160 × 16 Tu-95 × 60 Tu-22M × 61	
Reference	Population	Approx. 142.32 million	
	Term of service	1 year (In addition to conscription, there is a contract service system)	

Source: "The Military Balance 2022," etc. Ground troops include 280,000 ground force personnel and 45,000 airborne unit personnel.

has been proceeding. At the same time, Russia has opposed moves by the United States to advance MD systems domestically and overseas.

Amid such a situation, President Putin at the annual presidential address to the Federal Assembly of Russia in March 2018 expressed the view that the MD systems both in and outside of the United States are being deployed as a measure in response to ballistic missiles, which are the foundation of Russian nuclear forces, and introduced the following five new types of weapons as a means to breach the MD systems.

- ICBM “Sarmat,” which is believed to be capable of attacking targets via the North Pole or the South Pole with no substantial range limitation
- Hypersonic glide vehicle (HGV) “Avangard,” which is claimed to be capable of flying at speeds greater than Mach 20 in the intercontinental atmosphere
- Air-launched ballistic missile (ALBM) “Kinzhal,” which can be attached to MiG-31K fighters
- Nuclear cruise missile “Burevestnik,” which is capable of flying at lower altitudes with no substantial range limitation
- Nuclear-powered unmanned underwater drone weapon “Poseidon,” which is claimed to be able to navigate at high-speed in the deep sea

In 2019, Russia also announced for the first time that the sea-launched hypersonic cruise missile (HCM) “Zircon,” which has a believed range of over 1,000km with the maximum speed of Mach 9, was under development.

Of these new types of weapons, HGV “Avangard” and ALBM “Kinzhal” are already deployed, while the first test flight of the ICBM “Sarmat” was conducted in April 2022 with deployment begun by the end of 2022. In December 2021, Defense Minister Shoigu said that national testing of the HCM “Zircon” was in its final stages and that a mass-produced version would be deployed beginning in 2022.

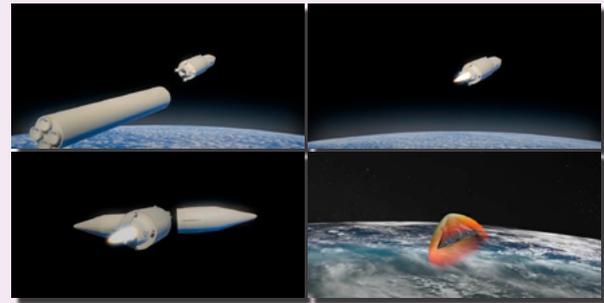
3 Conventional Forces and Other Issues

Russia is developing and procuring equipment in accordance with the State Armaments Program (GPV: Gosudarstvennaya Programma Vooruzheniya). It is also moving ahead with the development, procurement, and deployment of new equipment, such as the “Su-57” currently under development as the so-called “fifth-generation fighter” and the “T-14 Armata” tank, in

HGV “Avangard”

[Description]

Viewed as capable of flying through the atmosphere at a speed exceeding Mach 20 and of avoiding MD systems by changing altitudes and trajectories. Started to be deployed in December 2019.



[Russian Ministry of Defence]

ALBM “Kinzhal”

[Specifications, performance]

Speed: Mach 10 or more
Firing range: 2,000 km or more

[Description]

Air-launched ballistic missile loaded on a fighter that can be maneuvered during flight.

Some point out that ALBM is an air-launched model of a ground-launched short-range ballistic missile “Iskander.”



[Russian Ministry of Defence]

Nuclear-powered cruise missile “Burevestnik”

[Specifications, performance]

Under development

[Description]

Viewed as capable of flying at lower altitudes and on an unpredictable trajectory with no substantial range limitation due to being nuclear-powered. Some

point out that the explosion that occurred in a military facility in August 2019 was caused by an experiment in developing this weapon.



[Official YouTube Channel of the Russian Ministry of Defence]

Nuclear-powered unmanned underwater drone weapon “Poseidon”

[Description]

Poseidon is nuclear-powered and has a believed range of up to 10,000 km while carrying 2 megaton nuclear warheads



[Official YouTube Channel of the Russian Ministry of Defence]



Heavy unmanned combat aerial vehicle “Okhotnik” flying jointly with the 5th generation fighters [Russian Ministry of Defence]

addition to the introduction of the Su-35 fighter and the surface-to-surface missile system “Iskander.” Russia has also announced that its Aerospace Forces focus on the integration with manned aircraft in the development of unmanned aerial vehicles. Regarding this matter, in September 2019, the Ministry of Defence of Russia disclosed images of a cooperative flight test of heavy unmanned combat aerial vehicle “Okhotnik” and the 5th generation fighter Su-57. In December 2020, another cooperative flight of a Tu-95 long-range bomber and unmanned aerial vehicle was also reported.

In addition, the Russian Navy plans to increase the rate of modernization of its equipment to 70% by 2027. Because the replacement of surface vessels for coastal waters is being completed, the Navy will now move on to building surface vessels for the open sea. In July 2020, Russia undertook the construction of two of its first amphibious assault ships, which are expected to be delivered to the Russian Navy by 2027.

4 Space and Electromagnetic Domain

The AFRF has also been stepping up its activities in the realms of space and electromagnetic spectrum in recent years. Russia is believed to be promoting the development of anti-satellite weapons such as the “Nudol” anti-satellite missile system. In November 2021, Russia announced that it would conduct a satellite destruction test using an anti-satellite missile. Since 2013, Russia has put satellites into both low and geostationary orbits to conduct rendezvous and proximity operations (RPO), which have repeatedly been observed engaging in frequent RPO with other countries’ satellites on geostationary orbits. In July 2020, United States Space Command (USSPACECOM) announced that there was proof that Russia had conducted a test of a space-



Ground-deployed electronic warfare (EW) system Leer-3
[Official YouTube channel of the Ministry of Defence of Russia]

based anti-satellite weapon in Earth orbit. Commander General John Raymond at USSPACECOM criticized in his statement that, “This is further evidence of Russia’s continuing efforts to develop and test space-based systems.”

In the electromagnetic domain, since 2009, the AFRF has established an Electronic Warfare (EW) Unit, and many new EW systems have been procured and distributed or allocated to each service and force. In December 2021, it was announced that the EW Unit belonging to the Central Military District conducted an exercise to deceive the enemy by sending fake commands and signals to conceal the activities of their own forces. This indicates that the AFRF places importance on improving electronic warfare capabilities as a response to “network-centric warfare.”

5 Trends Related to the AFRF (General)

Since 2010, the AFRF has been conducting large-scale round-robin exercises in each military district, with the objective of verifying the combat readiness of the

HCM “Zircon”

[Specifications, performance]

Under development In the live-fire test in May 2022, it flew about 1,000 km and reportedly struck a maritime target.

[Description]

As “Zircon” shares the launcher with the cruise missile system “Kalibr,” it can be launched from new types of vessels of the Pacific Fleet



[Official YouTube Channel of the Russian Ministry of Defence]

military districts, etc.² These exercises are helping to improve the long-distance mobilization capability of the AFRF. In 2021, the joint strategic exercise “Zapad-2021” with Belarus was conducted in the Western Military District with the participation of about 200,000 military personnel, as well as about 2,000 troops from eight countries including India and Mongolia.

In February 2022, just prior to the start of the invasion of Ukraine, a large-scale missile exercise was conducted across Russia as a “strategic deterrence forces exercise” using strategic nuclear forces such as ICBMs and SLBMs as well as missile forces capable of carrying conventional or tactical nuclear warheads (Iskander, Kalibr, Kinzhal, and Zircon).

In the Arctic Region, Russia is developing coastal surveillance radar networks for enhanced vigilance and surveillance. At the same time, Russia is rebuilding airfields and deploying Tu-22M medium-range bombers and MiG-31 interceptor fighters, while also deploying surface-to-air missiles and surface-to-ship missiles to develop sufficient preparedness for dealing with airborne threats from the north and attacks from ships. Along with these developments, Russia has built a large-scale residential facility for personnel at the base in two places within the Arctic Region.

In addition to the development of such military facilities, the AFRF has also been conducting such activities as strategic nuclear deterrence patrols by SSBN and patrol flights by long-range bombers. For example, Tu-95 and Tu-160 long-range bombers have frequently been observed flying through international airspace off the Alaskan coast and over the Barents Sea and Norwegian Sea.

Against the background of such activities in the Arctic Region, this region had been attracting attention from Russia and many other countries due to increased mining potential of reserve resources and enhanced usefulness as a sea route identified with sea ice melting caused by global warming in recent years. For this reason, Russia has been promoting the system to defend the national interest in the Arctic Region, and clearly stating in various policy documents Russia’s rights in the Arctic Region and the roles of the AFRF in defending the national interest. For example, in the Strategy for Developing the Russian Arctic Zone and Ensuring



Russia's cantonment "Arctic Trefoil" on Alexandra Land [Russian Ministry of Defence]

National Security until 2035, revised in October 2020, Russia clearly states “ensuring operational system adequate for the Arctic Circle,” “developing modern weapons, and military and special equipment suitable for the Arctic environment,” and “developing base infrastructure” as specific issues to be addressed in order to ensure the military security in the Arctic Region.

Russia thus appears to be stepping up military activities, so close scrutiny of developments in this regard will be required.

With regard to the development of AFRF pertaining to the COVID-19 pandemic, when the infections were spreading, in February 2020 the Russian Ministry of Defence sent two Aerospace Force’s transport aircraft carrying CBRN (Chemical, Biological, Radiological, and Nuclear) experts, military physicians, and virologists to Wuhan, China, and transported hundreds of people in addition to Russian citizens to Russia. The AFRF mobilized more than 30,000 personnel for conducting infectious disease countermeasures, in which the CBRN Protection Force carried out disinfection work for military facilities and other city blocks, and accepted infected people at military hospitals. Efforts have been made to increase the number of hospital beds with the aim of also offering medical support to the private sector, such as increasing the number of beds of the hospital ship held by the Pacific Fleet and newly constructing 16 medical centers nationwide. Russia has also carried out support activities such as transportation of medical relief goods for other countries. Furthermore, the 48th Central Scientific Research Institute of the Ministry of Defence worked with the Gamaleya National Center of

² The exercises were conducted primarily in the Central, Western, Eastern, and Southern Military Districts, and are called “Tsentr (Central),” “Zapad (West),” “Vostok (East),” “Kavkaz (Caucasus),” respectively.

Epidemiology and Microbiology under the Ministry of Health and jointly developed Russia's own "Sputnik V" COVID-19 vaccine.

At the expanded meeting of the Defence Ministry Board in December 2021, Defense Minister Shoigu stated that the vaccination rate of the AFRF was 100% for military personnel and 70% for civilian staff, achieving full-scale herd immunity.

6 Russian Forces in the Vicinity of Japan

Russia newly established the Eastern Military District and the Eastern Joint Strategic Command in 2010. Land Forces, the Pacific Fleet, and the Air Force and Air Defense Units have been placed under the Military District Commander, who conducts unified operation of these services.

The current presence of the AFRF in the Far East region is significantly smaller than it was at its peak. However, a considerable scale of military forces, including nuclear forces, still remains in the region. Russian armed forces in the vicinity of Japan are generally increasing activity, including the trend related to the deployment of new units and military facility. In recent years, Russia has also been deploying the latest equipment in the Far East. It announced that the percentage of new equipment in the Eastern Military District was 56% as of December 2021.

Given that the AFRF set its basis of operation on maintaining the combat readiness of its strategic nuclear units and dealing with conflicts through the inter-theater mobility of its round-the-clock readiness units, it is necessary to monitor with concern the positioning and

trends of the AFRF in the Far East region while also keeping in mind the trends of units in other regions.

(1) Nuclear Forces

As for strategic nuclear forces in the Far East region, one Delta III-class SSBN and two Borey-class SSBNs equipped with SLBMs are deployed in and around the Sea of Okhotsk, and approximately 30 Tu-95 long-range bombers are deployed in Ukrainka. Russia is prioritizing the reinforcement of its maritime strategic deterrence posture which had been greatly scaled-down compared to the former Soviet Union, and as part of these efforts, it plans on deploying five Borey-class SSBNs to the Pacific Fleet in the future.

(2) Ground Forces

The Eastern Military District now consists of 24 brigades and two divisions with approximately 80,000 personnel in total, including motorized rifles (mechanized infantry), tanks, artillery, and surface-to-surface missiles, as well as a marine brigade equipped with amphibious operations capability. The Eastern Military District has introduced new equipment, such as the "Iskander" surface-to-surface missile system, "Bal" and "Bastion" surface-to-ship missiles, and the "S-400" surface-to-air missile system.

(3) Naval Forces

The Pacific Fleet is stationed or deployed at its main bases in Vladivostok and Petropavlovsk-Kamchatskiy. The fleet is comprised of approximately 260 ships with a total displacement in the region of approximately 610,000 tons, including approximately 20 major surface



The improved Kilo-class submarine "Volkhov" assigned to the Pacific Fleet, which navigated around Vladivostok in November 2021. It is believed to be capable of being equipped with the "Kalibr-PL" land-attack cruise missile with a maximum range of 2,000 km. [Russian Ministry of Defence]

Russian frigate "Gremyashchiy"

[Specifications, performance]

Full-load displacement: 2,235 tons

Maximum speed: 26 knots

Main armament: SS-N-30A land-attack cruise missile (maximum firing range: 1,500 km), SS-N-26 anti-ship cruise missile (maximum firing range: 300 km), 9M96 surface-to-air missile (maximum firing range: 60 km)

On-board aircraft: One helicopter (Ka-27)



[Russian Ministry of Defence]

[Description]

Russian Navy's new-type frigate. One frigate armed with "Kalibr" cruise missiles and three without are assigned to the Pacific Fleet.

ships and approximately 20 submarines (approximately 13 of which are nuclear powered submarines) with a total displacement of approximately 220,000 tons. In April 2021, the Udaloy-class modernized frigate “Marshal Shaposhnikov” conducted a test launch of “Kalibr” cruise missiles in the Sea of Japan for the first time, and returned to part of the permanent readiness forces as the first vessel in the Pacific Fleet armed with “Kalibr” cruise missiles. In addition, in November 2021, the Steregushchiy II-class missile frigate “Gremyashchiy” carrying “Kalibr” cruise missiles, which was newly built for the Pacific Fleet, as well as the Kilo-class submarines “Petropavlovsk-Kamchatskiy” and “Volkhov” were brought around to Vladivostok.

(4) Air Forces

In the Eastern Military District, Russia deploys approximately 320 combat aircraft from its Aerospace Forces and Navy combined. Existing models are being modernized and new models, such as the Su-35 fighters and the Su-34 fighter-bombers, are being introduced to improve their capabilities.

(5) Operations in the Vicinity of Japan

In the vicinity of Japan, the AFRF has been generally increasing its activities, including exercises and drills which are believed to be conducted for objectives such as verifying the results of the military reform.

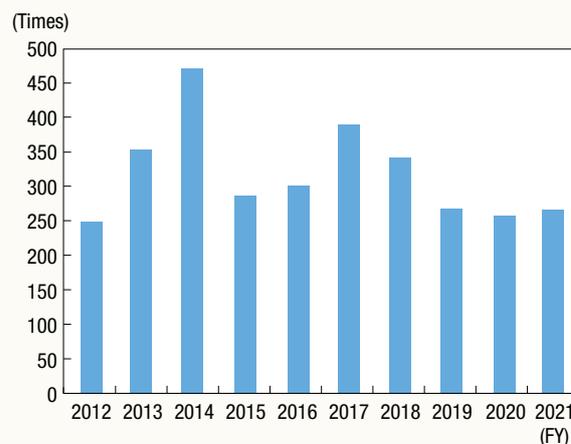
The number of exercises carried out by the Russian Land Forces in the areas adjacent to Japan has decreased from the peak. However, its activities are generally increasing.

With regard to naval vessels, their activities are generally increasing in recent years. For example, various exercises and long-distance voyages have been carried out by Pacific Fleet vessels, along with patrols by nuclear-powered submarines. In September 2018, 28 naval vessels including a Slava-class guided missile cruiser passed through the Soya Strait. This was the largest number of vessels announced by the Ministry of Defense (MOD) as having transited this strait at the same time since the end of the Cold War.

From the end of January to mid-March 2022, a large-scale maritime exercise, believed to be a part of the Russian Navy’s whole fleet exercise, was conducted in the Sea of Okhotsk and other areas with the participation of more than 20 naval vessels. During the exercise period, a total of 49 vessels, including those

Fig. I-3-5-3

Changes in the Number of Scrambles against Russian Aircraft



not announced as participating in the exercise, sailed through the Soya and Tsugaru Straits. The exercise was unique in terms of both its timing and scale. In addition, given the characteristics of the sea area during the ice floes season in which the exercise was conducted, it is clear that it was intended to demonstrate Russia’s ability to actively operate in the Sea of Okhotsk, which Russia places importance on as an area of operation for strategic nuclear-powered submarines. This should be a subject of concern, considering the series of statements about the use of nuclear force made by Russia relating to its invasion of Ukraine. Regarding aircraft, since the resumption of the patrol activities by its strategic aviation units in 2007, Russia has been increasing flights by long range bombers. Also, there were flights of Tu-95 bombers refueled in mid-flight and supported by A-50 early warning and control aircraft and Su-27 fighters as well as flights of Tu-160. In December 2021, an IL-20 intelligence-gathering aircraft flew from the Sea of Japan to the Pacific Ocean via the Sea of Okhotsk, and another eight presumed Russian aircraft were confirmed to have flown over the Sea of Japan. The number of scrambles against Russian aircraft increased from the previous year, and Russian aircraft continued to be active in 2021, with two incursions into Japanese airspace, involving SDF aircraft scrambled against the Russian aircraft, confirmed to have occurred.

 Fig. I-3-5-3 (Changes in the Number of Scrambles against Russian Aircraft)



Medium-sized unmanned reconnaissance vehicle Orlan-10 Since 2015, it has been confirmed to have been used for exercises by Russian Ground Forces units located in the Northern Territories.

[Russian Ministry of Defence]

Surface-to-air missile system “S-300V4”

[Specifications, performance]

Maximum firing range: 400 km

Maximum altitude: 37 km

[Description]

Air defense missile said to have capabilities to deal with stealth aircraft.



[Russian Ministry of Defence]

Main battle tank “T-80BV (2018 version)”

[Specifications, performance]

Speed: Maximum speed 70 km/h

Main armament: 125 mm smoothbore

[Description]

Simplified and modernized version of the “T-80.” The sighting equipment, fuel supply mechanism, and ammunition-feed equipment are believed to be improved.



[Russian Ministry of Defence]

4 Russian Forces in Japan’s Northern Territories

Since 1978 during the former Soviet Union era, Russia has redeployed Land Forces units on Kunashiri, Etorofu, and Shikotan Islands of the Northern Territories, which are inherent territories of Japan. While the Russian troop strength is thought to be far less than that at peak times, one division, which belongs to a corps stationed in Southern Sakhalin (Karafuto), is still located on Kunashiri and Etorofu Islands. Furthermore, tanks, armored vehicles, various types of artillery, anti-air missiles, and unmanned reconnaissance vehicles are deployed. Furthermore, in recent years, Russia has been upgrading the facilities of its troops located in the Northern Territories. It is also deploying new equipment such as coastal (surface-to-ship) missiles belonging to its Navy and fighter aircraft belonging to its Aerospace Forces, conducting large-scale exercises, and implementing other such activities as it increases its military activities under the illegal occupation of the Northern Territories, which are inherent territories of Japan. Some point out the background for such moves as being the rising military importance of the Northern Territories adjacent to the Sea of Okhotsk, an operating area of SSBN, as well as the trend of increasing Russian military activities not only in the Northern Territories but also in Southern Sakhalin and the Chishima Islands, whose jurisdiction has not been determined.

In recent years, the deployment of major new equipment in the Northern Territories has included the announced deployment of coastal (surface-to-ship) missiles to Etorofu and Kunashiri Islands in 2016, and in August 2018, three Su-35 fighters were reportedly deployed at the new civilian airport on Etorofu Island, which was opened to military and civilian dual use in January of that year.

As for equipment of the Land Forces, in December 2020, media related to the Russian Ministry of Defence reported the deployment of “S-300V4” surface-to-air missile (maximum firing range of 400 km) in Etorofu and Kunashiri Islands. Furthermore, in January 2022, it was announced that in the previous year, the tanks of the units located in the Northern Territories had been replaced with the “T-80BV,” which is suitable for operation in cold regions.

Military exercises have also continued in the Northern Territories. In June 2021, landing and anti-landing exercises were conducted on Etorofu Island, Kunashiri Island, and Southern Sakhalin, involving over 10,000 military personnel, 500 ground equipment and machines, 32 aircraft, and 12 vessels.

In addition, in the vicinity of Sakhalin and the Chishima Islands, which, like the Northern Territories, are adjacent to the Sea of Okhotsk, the AFRF announced

in February 2021 that it had newly deployed the S-400 surface-to-air missile system to Southern Sakhalin. In December of the same year, it announced the deployment of the “Bastion” surface-to-ship missile system to Matua (Matsuwa) island of the Chishima Islands. There are reports on the establishment of a new coastal (surface-to-ship) missile brigade placed in

Southern Sakhalin, with jurisdiction over units located on Etorofu and Kunashiri Islands. It is necessary to monitor with concern the Russian military movements in the Far East, including the Northern Territories, while taking into account developments in the invasion of Ukraine.

5 Relations with Countries and Regions

1 General Situation

Russia considers the realization of its national interests as a guiding principle of its foreign policy, recognizing the multipolarization of international relations, the shift of global power to the Asia-Pacific region, and the growing importance of force in international relations.³ Moreover, based on its National Security Strategy, Russia engages in open, rational, and pragmatic diplomacy to protect its national interests, and aims to pursue multidirectional diplomacy.

Furthermore, Russia aspires to deepen its relations with the Asia-Pacific countries, seen as drivers of the global economy, and in recent years, has attached importance to China and India. Moves to strengthen collaboration with China in particular have been seen since the Ukrainian crisis in 2014, seemingly in inverse proportion to the deepening of Russia’s conflict with Western countries.

2 Relations with the United States

President Putin has striven to deepen cooperative relations with the United States in the economic domain, while opposing the United States on any action Russia considers as “a U.S. attempt to encroach on Russia’s strategic interests.”

On the military front, feeling that the United States’ installation of missile defense systems both at home and abroad - including in Europe and the Asia-Pacific - undermines global and regional security, Russia has criticized these moves for upsetting the strategic balance. Russia is also moving forward with the development of new strategic weapons that are said to be capable of reliably penetrating missile defense systems.

However, since the United States suspended military exchanges with Russia in March 2014 over the Ukrainian crisis, there have been frequent instances of both countries’ aircraft and ships coming into close proximity with each other. In November 2020, U.S. Navy’s guided-missile destroyer transited in the vicinity of Peter the Great Bay off the coast of Vladivostok, Russian Far East, against which the Russian Ministry of Foreign Affairs in a statement criticized the U.S. vessel’s intrusion into the Russian territorial waters as “public provocation.” Since the time of the Soviet Union, Russia has been claiming this Bay as its internal waters under international law, while the United States refutes that the water the U.S. vessel navigated is not the Russian territorial water.

In regard to arms control between the United States and Russia, the Intermediate-Range Nuclear Forces (INF) Treaty ended in August 2019 during the former Trump administration after having gone through a series of processes originating from the withdrawal announcement of the U.S. side. In November 2020, the United States pulled out of the Open Skies Treaty, which was signed by the Western countries and Russia allowing its participants to mutually conduct unarmed observation and surveillance flights, and this was followed by Russia announcing its withdrawal in January 2021.

On the other hand, with regard to the New START Treaty (Strategic Arms Reduction Treaty), which set the upper limit of strategic nuclear forces for Russia and the United States, President Putin and newly inaugurated President Biden of the United States agreed on its unconditional extension for five years during their first telephone talk in January 2021, just before the expiration of the treaty in February of the same year.

³ According to The Foreign Policy Concept of the Russian Federation (November 2016).

Column

The developments of the military cooperation between Russia and China: The repercussions of “strategic coordination”

In recent years, Russia and China have been increasing cooperation in the military sector. In the past, there was tension between the Soviet Union and China, including militarily, with the two countries experiencing, among other incidents, the Sino-Soviet border conflict in 1969. Since the 1980s, the two countries have been gradually improving relations. As a catalyst event for the normalization of relations in May 1989, in what had been a pending issue in the relations between the two countries, the work of demarcating borders was resumed (demarcated conclusively in 2008). In parallel with such work, efforts including the reduction of forces in border regions in accordance with agreements have been implemented to establish the foundation of proximity between the countries that can be seen today.

In 2003 Russia and China conducted their first joint counter-terrorism military exercise “Cooperation 2003” of the Shanghai Cooperation Organization (SCO), which was established with the framework for border demarcation, with Russia incorporating countries of the former Soviet Union, Central Asian countries, and China as the parent body. In 2005 the two countries renamed the exercise “Peace Mission” and have been implementing the joint counter-terrorism military exercise. The two countries have also been conducting “Joint Sea” joint naval exercises since 2012. From the outset, there have been years where “Peace Mission” exercises were implemented together with Central Asian countries, and years where the exercises were implemented by only China and Russia. In recent years, India and Pakistan, which have become new SCO member countries, have also been participating, therefore it can be considered that a focus of the exercises is the enhancement of military capabilities of Central Asian countries, keeping in mind the strengthening of military ties between Eurasian countries, centering on Russia and China, and the situation in Afghanistan.

While Joint Sea activities have been identified as “inward-facing” to allow Russia and China to ascertain the other’s naval capabilities, the activities may also be considered “outward facing,” demonstrating the cooperation and interests of each to third countries in waters where their respective interests are significant, with the exercises conducted not only in the Sea of Japan, East China Sea, Yellow Sea and other waters of major activity for both the Russian Pacific Fleet and People’s Liberation Army Navy, the main participating units in the exercises, but also in the Mediterranean Sea in 2015, South China Sea in 2016, and

Baltic Sea in 2017.

In recent years, such cooperation between Russia and China on the military front has become more conspicuous, as if to promote it as “strategic coordination” movements. For example, between 2018 and 2020, the People’s Liberation Army participated in Russia’s internal yearly strategic command and staff exercise, and in August 2021, the Armed Forces of the Russian Federation participated in ZAPAD/INTERACTION-2021 bilateral strategic exercise within China for the first time. In addition, since 2019, Russia and China have conducted joint bomber flights in airspace over the Sea of Japan, East China Sea, and Pacific Ocean. In October 2021, the two countries implemented joint navigations for the first time by 10 naval vessels, mainly those vessels participating in the aforementioned “Joint Sea” exercises, which involved orbiting Japan. In November of the same year, joint flights were conducted with bombers from Russia and China, with Russian planes passing through Chinese airspace and Chinese planes passing through Russian airspace, each for the first time. The bombers advanced directly toward the Sea of Japan, and from the Sea of Japan to the East China Sea and the Pacific Ocean.

Appearing to substantiate the view that these actions are a strengthening of “strategic coordination,” in an online conference between the defense ministers of Russia and China in November 2021, the Russian side asserted that the increased frequency of activity by U.S. strategic bombers in the airspace adjacent to Russia’s is a threat not only for Russia but also for China. Alongside this, it was announced that the militaries of the two countries have agreed to strengthen their partnership relating to a “Joint Patrol,” which is believed to refer to bilateral strategic exercises, as well as the aforementioned joint flights and joint navigation. Furthermore, in January 2022 Russia and China announced that they had conducted joint naval training including Iran in the Arabian Sea. In May, three months into Russia’s aggression against Ukraine, the fourth joint flight with bombers from Russia and China was conducted in the skies over the Sea of Japan, the East China Sea, and the Pacific on the day of the Japan–US–Australia–India leaders’ summit in Tokyo. These moves show that the joint military activity between Russia and China is gradually expanding and shifting its focus from initial bilateral confidence-building in inner Eurasia to widely appealing their bilateral cooperation to the international community

including Japan, the United States, and Europe as “strategic coordination” in the waters on the periphery of Eurasia.

In the field of military technology, as well, it appears to be shifting from an emphasis on commercial interests seen in the 1990s with the export of Russian finished products to China to a deeper partnership on a strategic level, where a certain degree of trust is assumed, such as, as an example from recent years, support for the construction of a ballistic missile early warning system.

In joint statements by Russia and China in February 2022, the two confirmed their mutually supportive stances regarding each other’s “core interests,” with China, following Russia, declaring its opposition to NATO’s further expansion, and Russia expressing respect for the “One China” policy and opposition to any form of Taiwanese independence. As evidenced throughout the statements, both Russia and China seem to remain ever mindful of the United States as a common competitor while advancing their cooperative relationship. On February 24, Russia launched an aggression against Ukraine, and while China has taken the stance that it is not concerned with Russia’s plans for aggression, it insists that Russia’s actions are caused by the “Cold War mentality” of the United States and other NATO countries without being critical of Russia. China has also

expressed the opinion that it understands Russia’s reasonable concerns in respect of security issues. As made clear by Russia’s actions this time, the mutual support of each other’s “core interests” indicated by Russia and China in their Comprehensive Strategic Partnership can be said to lead to a relationship in which one country condones the other’s aggression against other countries, that is, changing the status quo by force unilaterally, despite the fact that Russia and China are permanent members of the United Nations Security Council, an organization that takes prime responsibility for maintaining international peace and security. From the standpoint of the security of Japan, this is not something that can be overlooked.

While only one aspect of the bilateral relationship, Russia and China’s military cooperation is linked with the current international military situation, including the resurgence of the China-India border dispute and Russia’s aggression against Ukraine, which has led to the promotion of cooperation between Western countries. Therefore, it is considered to have various impacts on many fronts beyond the security environment of East Asia, the major area of focus of Russia and China’s military cooperation, such as relations between Russia and India, Europe’s recognition of China, and similar, and these developments need to be continually monitored with concern.



President Putin and General Secretary Xi Jinping at the Russia-China summit meeting held in Beijing on February 2, 2022
[AFP=Jiji]



Russian Tu-95 bomber



Chinese and Russian warships (October 22, 2021)

See Chapter 2, Section 4-2 (Responses by NATO Member States and Other Countries)

3 Relations with China

Russia continues to advance close military cooperation with China. Export agreements on new armaments such as the S-400 surface-to-air missile system and Su-35 fighter jets were concluded in 2015, and since 2012,

Russia and China have been conducting joint naval exercise “Joint Sea.”

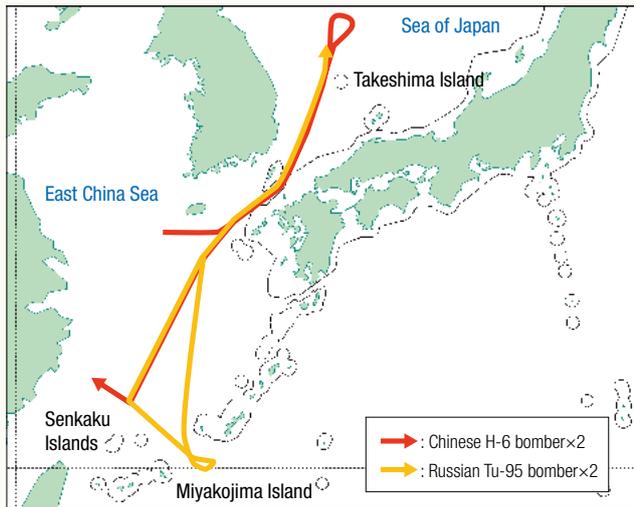
In 2021, “Zapad/Interaction-2021,” the first bilateral strategic exercise within China, was conducted in August. In addition, in October, the joint naval exercise “Joint Sea” was held for the first time in two years. After the exercise, the first China-Russia Joint Naval Patrol was conducted in which a total of 10 vessels from both countries,

Fig. I-3-5-4

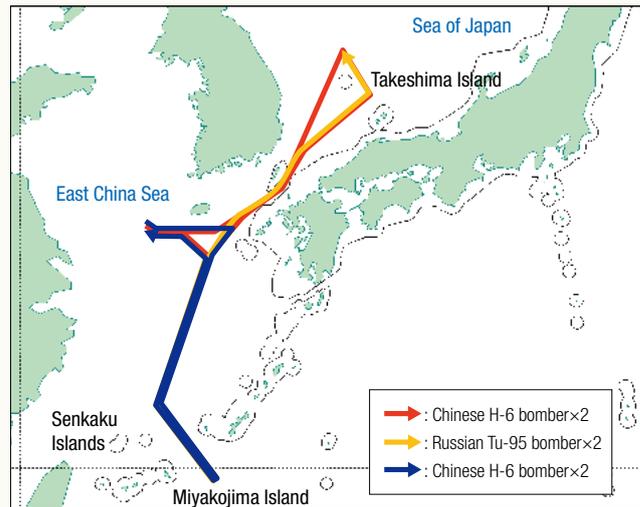
China-Russia Joint Flights

Routes of China-Russia Joint Flight

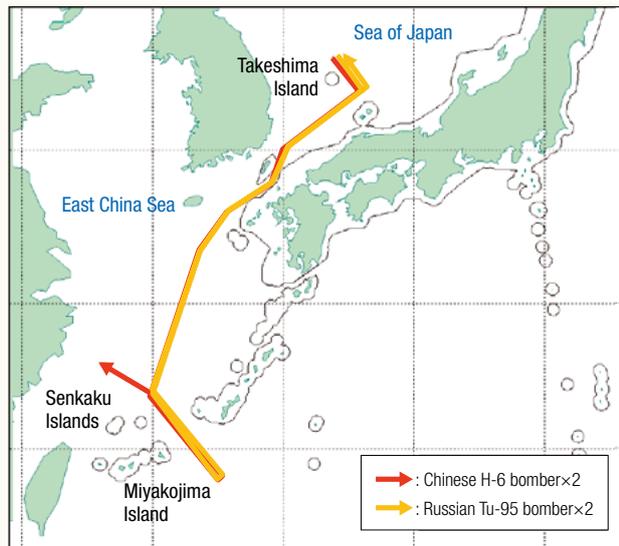
(1) July 23, 2019



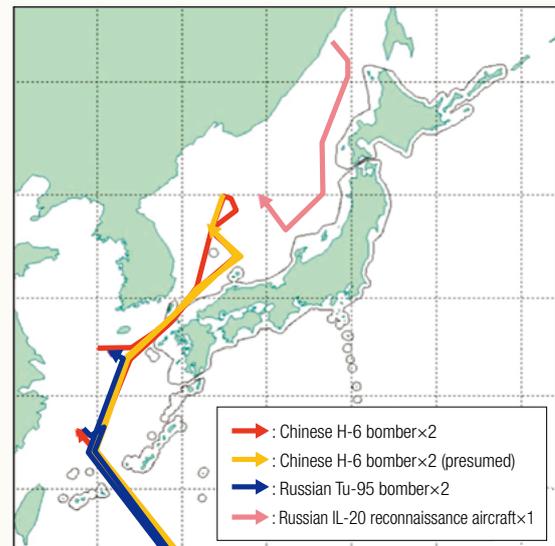
(2) December 22, 2020



(3) November 19, 2021



(4) May 24, 2022



consisting mainly of vessels that participated in the “Joint Sea” exercise, navigated around Japan. In November, the “China-Russia joint air patrol,” which has been conducted annually since 2019 by Russian Tu-95 bombers and Chinese H-6 bombers, was conducted in the airspace from the Sea of Japan through the East China Sea to the Pacific Ocean. In addition, in May 2022, three months after the start of Russia’s invasion of Ukraine, bombers from both countries further conducted another long-distance joint flight, flying farther out into the Pacific Ocean than ever before. It is believed that such joint activities by China and Russia in the vicinity of Japan have been intended as a

show of force against our country.

In addition, at the China-Russia defense ministers’ meeting in November 2021, Defense Minister Shoigu agreed to strengthen cooperative relations between the militaries of the two countries in strategic military exercises and joint flights and navigation, and a roadmap for cooperation through 2025 was approved. During the meeting, it was announced that Defense Minister Shoigu pointed out to the Chinese side that the flights of U.S. strategic bombers near the eastern border of Russia were a threat to China as well.

See Chapter 3, Section 2-3-2 (Relations with Russia)

Fig. I-3-5-4 (China-Russia Joint Flight)

4 Relations with Former Soviet Republics

Russia positions the development of bilateral and multilateral cooperation with former Soviet republics as one of its most important foreign policy objectives. Russia considers that its vital interests are concentrated in the region. It deploys its troops in the Collective Security Treaty Organization (CSTO)⁴ members Armenia, Tajikistan, and Kyrgyzstan, as well as Moldova (Transnistria), Georgia (South Ossetia, Abkhazia), and Ukraine (Crimea). Through the conclusion of an alliance and strategic partnership treaty with Abkhazia in November 2014, the conclusion of an alliance and integration treaty with South Ossetia in 2015, and other efforts, Russia has been working to ensure its military influence.

However, in recent years following three decades after the collapse of the Soviet Union, a situation has arisen that could be interpreted as being the gradual decrease of Russia's influence over the former Soviet bloc. Particularly, in the Nagorno-Karabakh conflict which saw an outbreak of large-scale fighting in 2020, Russia's response was limited to leading a ceasefire agreement and dispatching peacekeeping troops because although Armenia, one of the parties involved in the conflict, has a military alliance with Russia, the fighting did not directly involve Armenian territory in the current conflict. In addition, Georgia, Ukraine, and Moldova are oriented toward the path of European integration. In particular, Georgia and Ukraine are making progress in cooperation with NATO with the aim of becoming members.

In Central Asia, Russia conducted a joint exercise in Uzbekistan with that country in August 2021, as well as a joint exercise in Tajikistan with Uzbekistan and Tajikistan. Russia has explained that the background for these exercises was the destabilization of the situation in Afghanistan. In addition, in January 2022, at the request of Kazakhstan, the CSTO collective peacekeeping forces, led by Russia's Airborne Forces, were dispatched in response to the expansion and intensification of protests.

 See Chapter 2 (Russia's Aggression against Ukraine)

5 Relations with Other Countries

(1) Relations with Asian Countries

Russia recognizes that the significance of the Asia-Pacific region is increasing within its multi-pronged foreign policy, and considers it strategically important to strengthen its status in the region from the viewpoint of socioeconomic development in Siberia and the Far East, and security. In Asia, in addition to its relations with China, Russia assigns an important role to its Special and Privileged Strategic Partnership with India. In December 2021, in conjunction with the annual summit meeting, the inaugural 2+2 Dialogue of the Foreign and Defence Ministers was held in New Delhi. As for military arrangements, another example of the ongoing wide-ranging military cooperation between Russia and India is the joint exercise "INDRA," which has been taking place since 2003 with the involvement of the armies and navies of both countries, with their air forces also taking part in the recent years. Furthermore, Russia is working to strengthen its relations with ASEAN, and conducted the Naval Cooperative Exercise with ASEAN countries firstly in the inshore waters of Indonesia in December 2021.

(2) Relations with European Countries

Through the framework of the NATO-Russia Council (NRC), Russia has worked with NATO as an equal partner in the areas of common interest, such as by participating in certain decision-making processes. However, following the Ukrainian crisis in 2014, NATO and European countries suspended their practical cooperation with Russia thereafter, including that in the military domain, except for the NRC's ambassador-level meetings.

In October 2021, NATO expelled members of Russia's mission to the alliance on the grounds that they were actually intelligence officers. In response, Russia's Ministry of Foreign Affairs announced the suspension of activities of its mission to NATO and of the alliance's related office in Moscow.

In January 2022, the NRC meeting was held for the first time in nearly two years regarding the buildup of Russian military forces around Ukraine and elsewhere.

⁴ CSTO is a military alliance consisting of six member states, namely Russia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, and Armenia. Article 4 of the 1992 Collective Security Treaty, which is the grounds for establishing the Collective Security Treaty Organization (CSTO), states that, "In the event of an act of aggression against any of the participating States, all other participating States will provide them with the necessary assistance, including military, and will also provide support at their disposal in exercising the right to collective defense in accordance with Article 51 of the UN Charter."

See Chapter 2, Section 2-1 (Security Environment in Europe after the End of the Cold War and Ukraine)
Chapter 2, Section 4-2 (Responses by NATO Member States and Other Countries)

(3) Relations with Middle Eastern and African Countries

Since September 2015, while acquiring Tartus Naval Base and Khmeimim Air Base as bases of its operations in Syria, the Russian military, which was carrying out military operations to support the Assad administration in Syria, has conducted aerial bombing using fighter-bombers and long-range bombers as well as cruise missiles from surface vessels and submarines deployed to the Caspian Sea and Mediterranean.

Operations in Syria using cruise missiles and strategic bombers have provided the ideal setting to demonstrate Russia's long-range precision strike capabilities. It has been pointed out that Russia maintains a military presence in Syria and is building permanent "A2/AD" capabilities by deploying long-range surface-to-air missiles, as well as expanding cooperation with neighboring countries such as Turkey, Iran, and Egypt. Taking this into account, Russian influence over the eastern Mediterranean region, especially Syria, cannot be ignored.

Russia is increasing its influence over both the Syrian situation and peace in Libya, while at the same time coordinating its interests with Turkey. In May 2020, the United States Africa Command (AFRICOM) announced that Russian MiG-29 fighters were delivered to Libya after military aircraft insignia had been removed in Syria, and accused Russia's involvement in creating the war situation in Libya using private military companies (PMC) that the Russian government supports. AFRICOM also mentioned the possibility of extremely serious security concern arising in southern European countries, if Russia establishes a base on the coast of Libya and develops permanent "A2/AD" capabilities in the area. It has also been reported that approximately 1,200 personnel from the Russian PMC Wagner Group were dispatched and on duty in Libya.

In October 2019, Russia held the first Russia-Africa Summit in Sochi and also dispatched two Tu-160 strategic bombers to South Africa under a military cooperation agreement that it had signed with South Africa in 1995. In December 2020, the Russian government announced an agreement with the government of Sudan to set up a

naval base on the Red Sea in Sudan, northeastern Africa.

Securing naval bases in Sudan, in addition to Tartus in Syria, will enhance the AFRF's deployment capabilities further afield.

Furthermore, in January 2022, the Malian military spokesman stated that Russian instructors had been dispatched to the country under a bilateral agreement to train Mali's military, and it is noted that 300 to 400 personnel of the Russian PMC Wagner Group have been operating inside Mali.

6 Arms Exports

Russia actively promotes the export of arms not only to maintain the infrastructure of its military industry and to make economic profit, but also to help promote better foreign policy. Export control is exclusively conducted by the Rosoboronexport State Corporation. In addition, Russia is working to improve the efficiency of its production system by promoting the integration of aircraft companies such as Sukhoi, MiG, and Tupolev. Currently, Russia has the third largest share of arms exports in the world after the United States and France,⁵ exporting fighters, vessels and surface-to-air missiles to countries including Asia, Africa, and Middle East. In recent years, Russia has been aggressively marketing its arms to allies and partners of the United States, including Turkey and Saudi Arabia, in addition to traditional export destinations. In particular, the export of S-400 to Turkey, a member country of NATO, was met with strong opposition from the United States. Russia is also expanding its sales activities to Southeast Asian countries such as Vietnam, Malaysia, and Myanmar.

⁵ According to the SIPRI, Russia has the third largest share of arms exports in the world (11%) after the United States and France.

Section 6

Oceania

1 Australia

1 General Situation

Australia maintains a special strategic partnership with Japan and shares universal values, such as strategic interests, respect for freedom and human rights, democracy, and the rule of law, with our country. Japan's relationship with Australia is becoming more important than ever before.

2 Defense Strategies

In July 2020, the Government of Australia released the 2020 Defence Strategic Update and the 2020 Force Structure Plan, which detailed the Australian Defence Force's (ADF's) capability investment plan for promoting the former.

In these documents, the Government identified the changes in the country's strategic environment which included: military modernization in the Indo-Pacific and intensifying major power competition involving the United States, China and other countries.

The Government also stated that the conduct of gray-zone activities, which aimed at achieving strategic goals without provoking conflict, had also expanded. The use of para-military forces, militarization of disputed features, exploiting influence, interference operations, and the coercive use of trade and economic levers were listed as its examples.

Based on the assessment of these situations, the Government decided to focus on the immediate region ranging from the north-eastern Indian Ocean, through maritime and mainland of South East Asia, to Papua New Guinea and the South West Pacific.

The objectives for Australian defense planning are to deploy military power: (1) to shape Australia's strategic environment, (2) to deter actions against the country's interests, and (3) to respond with credible military force when required.

In order to achieve the objectives, the Government plans to invest approximately AUS\$270 billion over the coming decade until 2030 in upgraded defense capabilities for the ADF. The investment of AUS\$270



The leaders of Australia, the United Kingdom, and the United States holding a joint press conference online following their agreement to establish AUKUS [EPA=Jiji]

billion includes funding in acquiring equipment for the Army, Navy and Air Force, information, cyber and space-related capabilities, as well as new longer-range strike weapons to deter or respond to an invasion in the Indo-Pacific. In addition, the Australian defense budget in FY2021 was AUS\$44.6 billion, which has met the target to spend 2% of GDP on defense as it did in FY2020.

Currently, ADF has approximately 59,600 personnel, and possesses high-performance tanks, vessels, and aircraft to implement joint operations with the U.S. Forces, one of its allies. For the deployment of these equipment in distant regions, Australia also owns air refueling aircraft and amphibious assault ships. In March 2022, the Government announced that it would add 18,500 ADF personnel by 2040, which is an increase of about 30%.

In September 2021, the leaders of Australia, the United Kingdom, and the United States announced the establishment of AUKUS, a new trilateral security cooperation framework aimed at deepening diplomatic, security, and defense cooperation in the Indo-Pacific region. The announced items for cooperation were (1) deeper information and technology sharing, (2) deeper integration of security and defense-related science, technology, industrial bases, and supply chains, and (3) deeper cooperation on a range of security and defense capabilities. As the first initiative under AUKUS, the

countries will cooperate on Australia's acquisition of eight nuclear-powered submarines.¹ In April 2022, they released a fact sheet that detailed the progress in their efforts to acquire the nuclear-powered submarine capabilities as well as the deepening of cooperation in additional areas such as the undersea robotics autonomous systems, quantum technologies, artificial intelligence, and hypersonic capabilities. In addition, Australia has announced its intention to advance cooperation with the United States on the introduction of Tomahawk cruise missiles, standoff missiles (JASSM-ER and LRASM), and precision strike-guided missiles for the Army, which are believed to have a range of over 400 km, as well as for the development of hypersonic missiles for the Air Force.

3 Relations with Other Countries

(1) Relations with the United States

The Australia-U.S. alliance was formalized through the Security Treaty between Australia, New Zealand and the United States of America (ANZUS).² In the 2020 Defence Strategic Update, the Australian Government clearly states that they will continue to deepen the alliance acknowledging that the alliance with the United States, including intelligence sharing and defense industrial and technological cooperation, is critical.

Since 1985, the two countries have been regularly convening the Australia-United States Ministerial Consultations (AUSMIN) to discuss major diplomatic and security issues.

In the Joint Statement of the AUSMIN held in Washington, D.C. in September 2021, the United States and Australia reaffirmed their determination to continue to advance regional peace, security, and prosperity in order to ensure an open, inclusive, and resilient Indo-Pacific region, as well as to cooperate through the AUKUS and Quad frameworks. The two countries also reiterated their continued support for a peaceful resolution of the issues between China and Taiwan without resorting to threats or coercion. They also expressed concern over China's expansive maritime claims in the South China Sea that had no

legal basis, called for the proper implementation of China's domestic legislation, including the Maritime Traffic Safety Law, in a manner consistent with the UN Convention on the Law of the Sea, and reiterated that the 2016 Arbitral Tribunal's Award as to the dispute between the Philippines and China was final and legally binding.

The military forces of the United States and Australia are striving to improve interoperability through bilateral exercises.

Exercise Talisman Sabre is the Australia-U.S. bilateral exercise conducted biennially since 2005, with the objective of enhancing combat readiness and interoperability. In 2021, amphibious landings and ground force maneuver were conducted by the Australian and U.S. forces, with the participation of the Canadian, British, and ROK forces, the SDF of Japan, and others.

The United States and Australia have increased the presence of the U.S. Forces in northern Australia, which is located near the Indo-Pacific. Based on the Force Posture Initiatives announced in November 2011, the U.S. Marine Corps began rotational deployment in northern Australia in 2012, which resulted in approximately 1,000 Marines deployed in the region in 2020.³ In addition, U.S. Air Force B-52 strategic bombers and F-22 fighters have been deployed to Australia as needed to participate in training. Global Posture Review released by the U.S. DoD in November 2021 specified the rotational deployment of U.S. military aircraft to Australia and the enhancement of infrastructure in Australia.

(2) Relations with China

For Australia, China is the biggest trade partner, and the two countries have had exchanges in the defense area such as dialogues between the defense authorities, joint exercises, and mutual visiting of vessels, in addition to exchanges and cooperation in the political and economic areas.

Meanwhile, Australia has been openly showing its wariness toward China including by delivering Australia's stance on China clearly.

1 Australia had planned to procure 12 conventional submarines (attack-class submarines) from France, but this plan was suspended when Australia decided to acquire nuclear-powered submarines within the framework of the AUKUS.

2 A trilateral security treaty among Australia, New Zealand, and the United States, which went into effect in 1952. Since 1986, the United States has suspended its obligation to defend New Zealand due to its adoption of a non-nuclear policy. The treaty is thus effective only between Australia and the United States and between Australia and New Zealand.

3 In 2021, it was announced that approximately 2,200 people were expected to participate.

The Australian Government has been expressing strong concerns over China's land reclamation and construction activities in the South China Sea, and called on all claimant states to halt militarization, while also clearly expressing its intention to continue to exercise its rights to freedom of navigation and overflight. Furthermore, the 2017 Foreign Policy White Paper contained statements to the effect that China was challenging the position of the United States in the Indo-Pacific, the most important region for Australia.

People within and outside Australia expressed their concerns over the acquisition by Chinese businesses of Australian facilities, including Port Darwin, a port that has been used by the Australian and United States fleets among others. In January 2017, the Government announced the establishment of the Critical Infrastructure Centre to serve as a dedicated body for advising related institutions in order to block the sale of important infrastructure related to national security, including specific ports and harbor facilities, to companies from other countries. The Centre manages the risks arising from foreign involvement by assessing the risks of sabotage, espionage and coercion in Australia's critical infrastructure sectors, including telecommunications, electricity, gas, water and ports.

With China's perceived influence on Australia growing larger, including cases of political figures and parties receiving huge political contributions and bribes, the Australian Parliament also passed a bill to prevent interference in domestic affairs by foreign actors.

There has been friction between the two countries concerning the spread of COVID-19, including China's successive restrictions on importing Australian beef and other goods since Australia suggested the necessity for an independent investigation into the origin of COVID-19. It is also pointed out that the conflict between China and Australia is worsening in relation to the human rights issue in Hong Kong and Uighurs. Furthermore, regarding the defense of Taiwan, Australian Defense Minister Dutton stated in November 2021 that it would be inconceivable for Australia not to support the United States if it chose to take action.

China has criticized the establishment of AUKUS, claiming that the provision of technology related to nuclear submarines to Australia is destructive to regional peace and stability.

In addition, on February 19, 2022, the Australian Department of Defence announced that a P-8A Poseidon

of the Australian Air Force had detected a laser beam emanating from a Chinese naval vessel in the Arafura Sea on February 17 of the same year. On February 20, Australian Prime Minister Morrison condemned the laser beam as "an act of intimidation" that Australia would never accept. In response, the Chinese Ministry of National Defense and Ministry of Foreign Affairs opposed this, stating that Australia's claims were "untrue."

(3) Relations with India

Australia sees India as a key security partner.

At the Australia-India summit meeting (held online) in June 2020, the two countries agreed to elevate the bilateral relationship to a Comprehensive Strategic Partnership. The two leaders announced that both countries share the vision of "an open, free, rules-based Indo-Pacific region," and released the Joint Declaration on a Shared Vision for Maritime Cooperation in the Indo-Pacific.

In addition, in September 2021, the two countries held their inaugural India-Australia 2+2 Ministerial Dialogue in New Delhi. In the Joint Statement, the two countries agreed to cooperate comprehensively in a wide range of fields, including defense, maritime affairs, climate change, cyber, space, counterterrorism, and the economy. Particularly in the defense field, they agreed to strengthen cooperation in defense technologies, maritime domain awareness, and operational logistics support.

From August to October 2021, the Royal Australian Navy participated in the Multilateral Exercise Malabar between the U.S. Navy, Indian Navy, and the Japan Maritime Self-Defense Force (JMSDF), as it did in 2020.

 See Section 8-1-2 (Military Affairs)

(4) Relations with Southeast Asia and Pacific Island Countries

In the 2020 Defence Strategic Update, Australia decided to focus on the immediate region ranging from the north-eastern Indian Ocean, through maritime and mainland South East Asia to Papua New Guinea and the South West Pacific.

Australia has been deepening its relations with Indonesia in the security and defense fields following the signing of the Lombok Treaty, a security cooperation framework, in November 2006, the elevation of

their relationship to a strategic partnership in March 2010, and the September 2012 conclusion of the Defence Cooperation Arrangement, which included the enhancement of cooperation in the fields of anti-terrorism measures and maritime security. The two countries' cooperative relations in the security and defense fields had stalled intermittently. However, since mutual visits by ministers and higher-level officials resumed, the bilateral relationship has been improving through initiatives, including regular Foreign and Defense Ministers Meetings (2+2) and the signing of an agreement on maritime security and terrorism, and of a Maritime Cooperation Plan of Action in 2018.

With Singapore and Malaysia, Australia carries out regular joint combined exercises in the South China Sea and other areas under the Five Power Defence Arrangements (FPDA; entered into force in 1971) framework, whereby Australia, New Zealand, and the United Kingdom would consult each other in the event or threat of an armed attack on Singapore or Malaysia, to decide on their response. Australia considers that Singapore is its most advanced defense partner, and that they share Australia's interest in a secure maritime trading environment. The defense cooperation between the two countries is also deepening, including through the signing of the Memorandum of Understanding on Military Training and Training Area Development in Australia under the comprehensive strategic partnership in October 2016. Regarding Malaysia, Australia stations ADF units in Royal Malaysian Air Force (RMAF) Base Butterworth, and contributes to maintaining regional security and stability through patrol activities in the South China Sea and the northern Indian Ocean.

Australia plays a leading role in assisting Pacific Island countries and Timor-Leste in fields such as security maintenance, natural disasters response, and

maritime patrol. In particular, in the wake of the undersea volcanic eruption off the coast of Tonga in January 2022 and the ensuing earthquake and tsunami damage, C-17A transport aircraft were dispatched to transport relief supplies, including supplies to be used in evacuation shelters, hygiene products, and telecommunications equipment, in cooperation with other countries, including New Zealand and Japan. In addition, in the field of maritime patrol, Australia regularly deploys ADF assets to the South Pacific to assist with patrol activities. It also plans to supply the Pacific Island countries and Timor-Leste with 21 new Guardian-class patrol boats by 2023. In May 2019, immediately after forming his Cabinet following the general election, Prime Minister Scott Morrison expressed his intention to continue active engagement with the Pacific Island countries, called Pacific Step-up, showing his stance of placing importance on the Pacific Island countries.

 See 2 of this Section (New Zealand)
Section 7 (Southeast Asia)

(5) Overseas Activities

Under the 2020 Defence Strategic Update, which emphasizes the Indo-Pacific region, Australia is ending some of its missions in the Middle East and focusing on training and maritime surveillance in the Indian Ocean and South China Sea as well as around Pacific Island countries. In addition, since 2018, the ADF has also made contributions to the peace and stability of the international community by conducting patrolling and monitoring activities using ADF patrol aircraft and vessels against illegal maritime activities, including illicit ship-to-ship transfers by North Korean ships, which is prohibited under the UN Security Council resolutions.

2 New Zealand

In July 2018, New Zealand announced a defense policy, the Strategic Defence Policy Statement 2018.

The Statement presented New Zealand's security objectives, including ensuring public safety, preserving sovereignty and territorial integrity, strengthening international order, maintaining democratic institutions and national values, and protecting the natural environment. In order to achieve these objectives,

New Zealand prioritizes the securing of operational capabilities in the primary operation area that stretches from the South Pole to the Equator. The country believes that challenges to the existing order of the Asia-Pacific region could impact its security and prosperity and that it is important to have defense capabilities that can globally support the maintenance of the international rules-based order. The Statement also mentioned other

priorities, including capabilities to operate effectively with the United States, the United Kingdom, Australia, and Canada, and the maintenance of the scale and quality of New Zealand's military contributions.

Moreover, the Statement was the first document that mentioned the impact of climate change and the role of the New Zealand Defence Force (NZDF) regarding the climate issue, which reflected the new administration's Pacific Reset strategy, and committed to support the Pacific Island countries that have been exposed to disasters. As for the issues in the South China Sea, the Statement specifically noted the China's militarization in the South China Sea, stating, "China's more confident assertion of its interests has at times raised tensions with neighboring states and with the United States."

In addition, New Zealand released the Defence Assessment 2021 in December 2021, which analyzed the country's strategic environment and provided a review of the challenges and other issues, suggesting that the construction of military facilities and unilateral resource development, as seen in the South China Sea, could occur in the island country region, too. The Assessment also identified strategic competitions as one of New Zealand's security challenges, noting that while the rise of China was the major driver, other countries were also involved in strategic competitions to varying degrees.

As for diplomatic relations, New Zealand has maintained close relationships with the United States and Australia based on the ANZUS Treaty, and sees Australia as its closest partner. In the joint statement of the May 2021 Australia-New Zealand summit meeting, serious concerns were expressed about the situation in the South China Sea, including the continued militarization of disputed features and intensification of destabilizing activities. The Joint Statement also expressed that China should respect the human rights of the Uyghur people, and should grant the United Nations and other independent observers access to the region. The United States has suspended its defense obligation to New Zealand in 1985, when New Zealand refused the entrance of a U.S. ship following its nuclear-free policy. Nevertheless, the two countries have strengthened their relationship in the diplomacy and defense fields through the Wellington Declaration (2010), which primarily focuses on strengthening strategic relations

in the fields of foreign policy and military affairs, and the Washington Declaration (2012), which mainly deals with expanding defense cooperation. The United States has thus become a very close strategic partner for New Zealand. While New Zealand has deepened its relationship with China through such initiatives as cooperation for the Belt and Road Initiative and joint air exercises, it also looks at China with a cautious eye as shown in the Strategic Defence Policy Statement 2018 and Defence Assessment 2021.

The NZDF has 9,400 personnel.⁴ It has contributed to the peace and stability of the region through such activities as engaging in monitoring and surveillance activities by patrol aircraft against illegal maritime activities, including illicit ship-to-ship transfers involving North Korean-flagged vessels, and dispatching its personnel to the United Nations Command Military Armistice Commission (UNCMAC) in the ROK, and to other operations in the Middle East and the South Pacific.

In June 2019, the New Zealand Government published the Defence Capability Plan 2019, which set out planned investments of NZ\$20 billion until 2030. Investments under the Plan include strengthening of relations with the Pacific Island countries; responding to climate change; and acquisition of vessels, helicopters, transport aircraft and more to strengthen the maritime surveillance capability.

In the wake of the undersea volcanic eruption off the coast of Tonga in January 2022 and the ensuing earthquake and tsunami damage, C-130 transport aircraft were dispatched to transport relief supplies, including food, hygiene products, and first-aid kits, in cooperation with other countries, including Australia and Japan.

⁴ According to The Military Balance 2021.

Section 7 Southeast Asia

1 General Situation

Southeast Asia occupies a strategic position for traffic, linking the Pacific and the Indian Oceans including the Straits of Malacca and the South China Sea. It is an important region for Japan, which relies on maritime transport for many of the supplies needed for economic activities and the lives of the Japanese people.

Meanwhile, this region still has destabilizing factors, including the territorial disputes in the South China Sea, ethnic minority issues, and separatist and independence movements. Moreover, there has also been problems with Islamic extremist groups and piracy incidents obstructing the safe passage of ships. In order to cope with these issues, the countries in Southeast Asia are working to build military forces for national defense and maintenance of domestic public security, as well as

for addressing new security issues such as terrorism and piracy. They are also pursuing cooperation with such countries as the United States, China, Russia, Australia, and India to this end. Recently, given the backdrop of economic development, countries have been modernizing their military forces, mainly their naval and air forces, as well as strengthening their maritime law enforcement capabilities.

However, the COVID-19 pandemic has seriously affected the economy of the countries in the region, which also had an impact on the military front. For example, some of these countries have decided to cut defense budgets to raise costs for implementing COVID-19 countermeasures.

2 Security and Defense Policies of Each Country

1 Indonesia

Indonesia is a major country in Southeast Asia, with the world's largest Muslim population. At the same time, it is the largest archipelago country in the world as it has vast territorial waters and occupies a strategic position for maritime traffic.

As part of its military force reform, Indonesia aims to meet the minimum requirements for defense capabilities—what it calls Minimum Essential Force (MEF). However, Indonesia has indicated that its maritime defense capabilities, in particular, are still very much inadequate. Accordingly, Indonesia has announced a defense budget increase as well as a policy to bolster its deployment of assets to the Natuna Islands, in the South China Sea, and other locations. In December 2018, it was reported that Indonesia deployed an Army composite battalion, Air Defense Command's radar squadron, and a Marines composite battalion on the Natuna Islands, and held an opening ceremony of the military base with piers that can accommodate submarines, and hangars for unmanned vehicles. Furthermore, it was reported that the ground-breaking ceremony for a submarines support

facility was held in April 2021. The Indonesian military established three Joint Regional Defense Commands (Pangkogabwilhan), in September 2019, which put the concept of Indonesian Military's interoperability into tangible form. Kogabwilhan serves as an initial action in the event of a conflict in this area for military operations and non-military operations and as a deterrent in the event of external threats.

Concerned about the “nine-dash line” claimed by China, which overlaps with Indonesia's EEZ in the vicinity of the Natuna Islands, Indonesia has enhanced its patrol activities in the waters near the island. In December 2019, Indonesia's Ministry of Foreign Affairs issued a diplomatic note of protest on the grounds that Chinese Coast Guard vessels had been found to have operated illegally in Indonesia's EEZ around the Natuna Islands escorting their fishing fleet.

Indonesia emphasizes cooperation with other Southeast Asian countries, and adopts a free and active foreign policy.

With the United States, Indonesia is strengthening its cooperative relationship in such fields as military education and training and military equipment

procurement, and is carrying out bilateral/multilateral training, including Cooperation Afloat Readiness and Training (CARAT)¹ and the Southeast Asia Cooperation Against Terrorism (SEACAT)² exercises.

In August 2021, foreign ministers of Indonesia and the U.S. had a bilateral strategic dialogue to discuss international situations. Furthermore, Indonesian Minister of Defence Prabowo and U.S. Secretary of Defense Austin discussed military exercises and security cooperation between their countries during the Manama Dialogue held in Bahrain in November 2021.

2 Malaysia

Malaysia's first defense white paper, which was published in December 2019, finds its potential to serve as a bridge between the vast Pacific and Indian Oceans as the country is divided in two territories—Peninsular Malaysia, and Sabah and Sarawak, on the island of Borneo—located between the two oceans. The white paper also recognizes the fact that, while Malaysia's strategic location and natural resources are blessing, they also pose a security challenge to itself. Given these attributes, Malaysia has historically been affected by the political dynamics of major powers, and even today, Malaysia sees in its defense white paper that uncertain U.S.-China relationship is the most important strategic challenge for Malaysia. Moreover, the white paper also recognizes that Malaysia faces increasing non-traditional security threats such as terrorism, cyberthreats, piracy, and natural disasters.

Based on this recognition, the white paper set up three pillars in order to defend national interests in each of three concentric areas, consisting of the Core Area, which includes both the country's land masses and territorial waters; the Extended Area, which encompasses the surrounding waters and airspace; and the Forward Area, which incorporates locations beyond the extended area where Malaysia's national interests are affected. The three pillars are: (1) Concentric Deterrence, which aims to dissuade all forms of external intrusion or conflicts by strengthening the capability of the nation's armed forces; (2) Comprehensive Defense, which seeks to enhance Malaysia's internal resilience by whole-of-government and whole-of-society approaches; and (3)

Credible Partnerships, which focuses on the promotion of regional stability via the expansion and enhancement of defense cooperation with other countries as a highly credible partner.

In connection with the recent continued anchoring of Chinese vessels around South Luconia Shoal, over which Malaysia claims sovereignty, Malaysia has announced that its Navy and maritime law enforcement agencies would conduct around-the-clock monitoring, and that Malaysia would defend its sovereignty. In June 2021, the Malaysian Air Force announced that 16 Chinese military aircraft had flown over the Shoal and approached as far as the Malaysian coast. In October of the same year, a Chinese survey vessel and other vessels entered Malaysia's EEZ, which the Malaysian government protested against.

Along with this expression of protest and strengthening of its maritime defense capabilities, Malaysia also has striven to bolster its defense posture in eastern Malaysia, constructing a new naval base in April 2017 in Bintulu, close to James Shoal and South Luconia Shoal. In July 2019, the Air Force carried out live-fire missile exercises in Sabah state, on Borneo in eastern Malaysia.

Since December 2019, Malaysia also has been confirming Chinese ships' activities around its own drillship West Capella.

In April 2020, the United States and Australia carried out joint exercises in the area surrounding the West Capella, and in May 2020, U.S. Littoral Combat Ship (LCS) also conducted presence operations near the West Capella.

In addition, as well as conducting bilateral/multilateral exercises with the United States such as "CARAT" and "SEACAT," Malaysia has been promoting military cooperation including capacity building in the maritime security field.

3 Myanmar

Myanmar shares borders with China and India, and is a gateway to the Indian Ocean for China and some ASEAN countries. In light of these factors, Myanmar is noted for its strategic significance. In Myanmar, the armed forces had control over the government

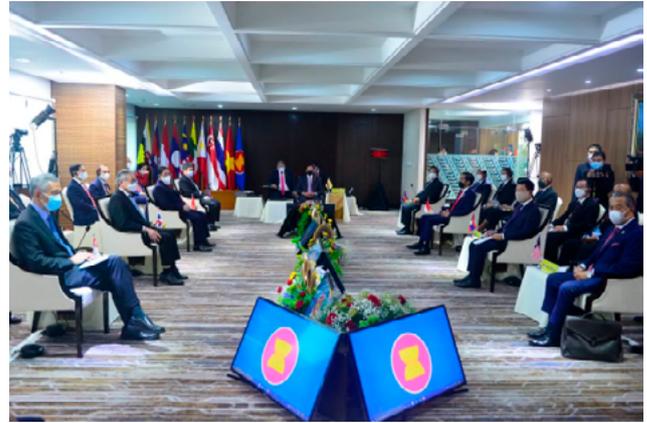
¹ A general term that refers to a series of bilateral exercises that the United States conducts with Bangladesh, Brunei, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Timor-Leste.

² Refers to counter-terrorism multilateral exercises that the United States conducts with Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

following the collapse of the socialist regime in 1988. However, with an economic slowdown caused by the economic sanctions imposed by the West, the transition to civilian rule was completed based on the road map to democracy.

In November 2020, Myanmar's parliamentary election was held for the first time in five years and the ruling National League for Democracy (NLD) secured an overwhelming single majority in both the upper and lower houses. However, in February 2021, State Counsellor Aung San Suu Kyi and her party's senior members were detained by Myanmar's military, which was claiming election fraud, and the armed forces declared a state of emergency to carry out a coup d'état, and powers were handed over to the commander-in-chief. The State Administration Council (SAC) chaired by Commander-in-Chief of the Myanmar Armed Forces Min Aung Hlaing was formed by the military. The Armed Forces controlled information and used force to suppress civil disobedience movements and protests against their administration, resulting in numerous casualties. This unleashed a storm of condemnation and concern from the international society.

Then, in April of the same year, although the Committee Representing Pyidaungsu Hluttaw (CRPH) instituted by Pro-Democracy Group declared the establishment of the National Unity Government (NUG), the Armed Forces designated them and others as terrorist organizations. After the ASEAN Leaders' Meeting held the same month with the presence of a Myanmar military representative, the Chairperson issued a statement expressing deep concern on the situation in the country including the increasing number of victims and the escalation of violence. During this meeting, a "Five-Point Consensus" was agreed to, recognizing ASEAN's proactive and constructive role in promoting a peaceful resolution. The five items were as follow: (1) First, there shall be immediate cessation of violence in Myanmar and all parties shall exercise utmost restraint; (2) Second, constructive dialogue among all parties concerned shall commence to seek a peaceful solution in the interests of the people; (3) Third, a special envoy of the ASEAN Chair shall facilitate mediation of the dialogue process, with the assistance of the Secretary General of ASEAN; (4) Fourth, ASEAN shall provide humanitarian assistance through the AHA Centre; and (5) Fifth, the special envoy and delegation shall visit Myanmar to meet with all parties concerned. In August



Chairman's Statement on the ASEAN Summit Meeting and the "Five-Point Consensus"
[ASEAN]

of the same year, SAC announced the establishment of an "interim government" with Commander-in-Chief of the Myanmar Armed Forces Min Aung Hlaing as the "provisional prime minister."

And during an ASEAN Foreign Ministers Meeting in the same month, it was agreed to appoint Mr. Erywan, the second minister of foreign affairs of Brunei, as a special envoy to Myanmar.

Following this, however, the conflict between the Armed Forces and pro-democracy groups intensified with numerous casualties, and no meeting between the special envoy and concerned parties materialized. In October of the same year, an Emergency ASEAN Foreign Ministers' Meeting was held on the situation in Myanmar, after which the Statement of the Chair was issued stating that ASEAN would invite a non-political representative from Myanmar to the upcoming ASEAN Summits and Related Summits. The Myanmar Armed Forces strongly rejected this decision and did not attend the Summit Meeting held in the same month.

Myanmar has maintained a good relationship with China since the two countries established diplomatic relations in 1950 and the country is regarded as a major supplier of equipment. Myanmar has also received Chinese aid for pipeline construction and the development of Kyaukpyu Port. In January 2020, President Xi Jinping became the first Chinese leader to visit Myanmar for 19 years and affirmed China's policy of promoting economic cooperation through the BRI.

Myanmar has maintained a cooperative relationship with Russia in the military field since the period of the past military regime, and Russia was a destination for students from Myanmar and a supplier of major defense equipment. As for India, since the transition to civilian rule, Myanmar has deepened cooperative relations in

the fields of the economy and military, which resulted in defense cooperation and exchanges such as the hosting of various seminars and friendly visits to Myanmar by Indian naval vessels.

Cooperative relations with North Korea, including weapons trades, were maintained under Myanmar's military regime in the past. Following the transition to democracy, although Myanmar denied its military ties to North Korea, the report issued by the Panel of Experts of the UN Security Council Sanctions Committee on North Korea in March 2018 reported that the country has received a ballistic missile system and other weapons from North Korea.

4 The Philippines

The Philippines considers that its archipelagic attributes and geographic location are a source of both strength and vulnerability. Moreover, the country sees that its strategic location and rich natural resources have also provided a strong temptation to expansionist powers. Based on this perception, although resolving internal armed conflicts remains its top security concern, rising tensions in the South China Sea have prompted the Philippines to give the same attention to territorial defense as it does to internal security threats.

The Philippines, with a historically close relationship with the United States, has maintained a cooperative relationship with the United States under their mutual defense treaty and military assistance agreement, even after the withdrawal of the U.S. Forces in 1992. The two countries conduct a number of bilateral exercises, including Balikatan, KAMANDAG, and Maritime Training Activity Sama Sama. In March 2016, the two countries agreed on five locations for carrying out defense cooperation under the Enhanced Defense Cooperation Agreement (EDCA) they signed in April 2014 for strengthening cooperation in such areas as the capacity enhancement of the Armed Forces of the Philippines and disaster relief. The five locations are Antonio Bautista Air Base, Basa Air Base, Fort Magsaysay, Lumbia Air Base, and Mactan-Benito Ebuen Air Base. Furthermore, the Government of the Philippines notified in February 2020 its intention to terminate the Visiting Forces Agreement (VFA), which prescribed the legal status of U.S. military personnel when U.S. Forces conducts bilateral/multilateral military exercises or other activities in the Philippines.

However, in July 2021, the Philippines President Duterte decided to withdraw the notice. In addition, cooperative relations of the two countries in the region have been strengthened as shown by the event that during the U.S.-Philippines defense ministers' meeting in September 2021, Secretary of Defense Austin stated that the United States' commitments under the U.S.-Philippines Mutual Defense Treaty extend to the Philippine armed forces, public vessels, and aircraft in the South China Sea.

The Philippines and China have competing claims over the sovereignty in the Spratly Islands and Scarborough Shoal of the South China Sea. In January 2013, seeking a settlement under international law, the Philippines started arbitral tribunal proceedings pursuant to UNCLOS against China. In July 2016, the final award was rendered, accepting nearly all of the Philippines' submissions. The Government of the Philippines released a statement that it welcomed the award by the arbitral tribunal and strongly affirmed its respect for the decision. Also, President Duterte stated in his State of the Nation Address held in the same month that the Philippines would strongly affirm and uphold the award handed down for the arbitration case between the Philippines and China.

The Philippines has been advocating peaceful resolution of international conflicts based on international laws including United Nations Convention on the Law of the Sea. In April 2019, the Philippines criticized China when it confirmed the presence of more than 200 Chinese vessels near and around Thitu Island (Filipino name: Pag-asa Island), which is under the effective control of the Philippines.

In addition, the conflicts between the Philippines and China over the South China Sea dispute were observed even after 2020 when the COVID-19 infections became a global pandemic. The Philippines protested against China that a Chinese military vessel had directed fire-control radars at a Philippine Navy ship in February 2020, and that China had established administrative districts on islands in the South China Sea in April of the same year. In July 2020, responding to China's announcement of its plan to conduct military training in the South China Sea, Secretary of Foreign Affairs. Teodoro Locsin expressed his concerns in a video. Moreover, regarding the fact that "220 Chinese militia ships were confirmed in the South China Sea" in March 2021, the Department of National Defense of the Philippines accused China of conducting "a clear

provocation of the militarization” of the South China Sea, and demanded China to remove ships. In response, the Chinese side claimed its sovereignty over Whitsun Reef, and then denied the existence of Chinese militia ships and explained that “some fishing ships had to shelter at Whitsun Reef from the bad weather.”

Furthermore, in November 2021, the Philippine Foreign Minister issued a statement of protest about obstruction of work caused by the use of a water cannon by Chinese Coast Guard vessels against supply vessels that were working to supply the Philippine military in the Spratly Islands. The U.S. Department of State issued a news statement in response to this, emphasizing its intention to invoke U.S.-Philippines Mutual Defense Treaty in case of an armed attack on Philippines public vessels in South China Sea.

 Chapter 4, Section 5-1 (Trends Related to the “Principle of the Freedom of the High Seas”)

5 Singapore

Given its limited land area, population, and resources, Singapore’s existence and development depend on the peace and stability of the region in a globalized economy. Therefore, Singapore gives high priority to national defense, with defense spending accounting for about one-fifth of its national budget.

Singapore identifies deterrence and diplomacy as twin pillars of its national defense policy. Because it is a very small country, Singapore’s armed forces make use of the training facilities of other countries, including the United States and Australia, while continually dispatching military personnel to take part in training exercises overseas.

Singapore emphasizes the importance of cooperative relations of ASEAN and the FPDA,³ and has concluded defense cooperation agreements with countries within and outside the region. With the aim of contributing to peace and stability in the region, Singapore supports U.S. presence in the Asia-Pacific and permits it to use military facilities in Singapore. Since 2013, U.S. littoral combat ships (LCSs) began their rotational deployments. In December 2015, the P-8 patrol aircraft of the U.S. Forces were deployed to Singapore for around one week for the first time. The two countries have committed to

continuing to carry out similar deployments routinely. In addition, Singapore conducts bilateral/multilateral exercises with the United States, such as CARAT and SEACAT. In September 2019, the two countries signed the Protocol of Amendment to the 1990 Memorandum of Understanding Regarding United States Use of Facilities in Singapore to extend the MOU. In July 2021, U.S. Secretary of Defense Austin talked with Singapore Defense Minister Ng Eng Hen in Singapore and reaffirmed the relationship of defense cooperation between the two countries’ militaries emphasizing the United States’ commitment to Southeast Asia region together with the U.S. Vice President Harris’s visit in August of the same year.

Singapore has strong economic ties with China, and the two countries also conduct bilateral naval exercises. In October 2019, the two countries signed the enhanced Agreement on Defence Exchanges and Security Cooperation (ADESC). On the other hand, diplomatic relations with China have been strained partly due to Singapore’s advocacy of the arbitration award when it comes to the resolution of the South China Sea disputes and partly due to Singapore’s defense cooperation with Taiwan.

Singapore concluded the Bilateral Agreement for Navy Cooperation with India in November 2017 and the two countries undertake Exercise Bold Kurukshetra, a bilateral army exercise, and the Singapore India Maritime Bilateral Exercise (SIMBEX). In addition, Singapore, India, and Thailand held their first trilateral exercise in September 2019, which took place near the Andaman Islands.

In March 2020, Singapore and Australia signed the Treaty on Military Training and Training Area Development in Australia. This treaty enables the Singapore Armed Forces to access Australia’s newly developed training area.

 Section 6-1-3 (4) (Relations with Southeast Asia and Pacific Island Countries)

6 Thailand

Thailand’s defense policy includes: strengthening defense cooperation through ASEAN, international organizations, and other entities; defense that makes

³ Entered into effect in 1971. This agreement states that Australia, New Zealand, and the United Kingdom will discuss what response should be adopted in the event of an aggression towards or a threat of an attack on Malaysia or Singapore. The five countries carry out various exercises based on these arrangements.

comprehensive use of political, economic, and other national strengths; and effective defense aimed at increasing the readiness of the Royal Thai Armed Forces (RTAF) and developing the defense industry.

Under its flexible omni-directional diplomatic policy, Thailand pursues cooperation with other Southeast Asian countries and coordination with major countries. Exercise Cobra Gold, which is co-sponsored by the U.S. and Thailand and has been implemented since 1982, is currently one of the largest multilateral training in Southeast Asia.

In addition, the Marine Corps of the two countries have continued their bilateral/bilateral naval training CARAT and counter-piracy and trafficking exercise SEACAT.

Thailand and China have conducted bilateral training such as Blue Strike among their marines and Falcon Strike among their air forces. It has been pointed out that Thailand's military relationship with China has become closer after the freezing of U.S. military assistance following the coup.

In September 2019, Thailand and the ROK signed the General Security of Military Information Agreement (GSOMIA).

7 Vietnam

Based on its viewpoint that the sea is closely associated with the national construction and defense, Vietnam has established the objective of becoming a strong marine country, particularly prioritizing the modernization of its military forces and law enforcement forces at sea as well as ensuring the capability for maritime domain awareness, maritime independence, sovereign rights, jurisdiction and national interests at sea.

Vietnam deploys its omni-directional diplomatic policy and intends to actively participate in international and regional cooperation in order to build friendly relations with every nation. In March 2016, Vietnam opened an international port in the Cam Ranh Bay, which is located in a strategically important location, and Navy vessels from many countries including Japan have called at the international Cam Ranh Bay port.

Vietnam and the United States have strengthened their military relations in recent years. This has taken such forms as bilateral/multilateral training with the U.S. Navy and port calls by U.S. Navy vessels in Vietnam. In 2017, mutual visits were conducted by the

leaders of both countries, and an agreement was reached on the deepening of defense cooperation. March 2018 marked the first port call by a U.S. aircraft carrier to Vietnam after the end of the Vietnam war. In addition, the U.S. aircraft carrier and cruiser made a call at Da Nang in March 2020. In July 2021, U.S. Secretary of Defense Austin talked and reached an agreement with Vietnam Defense Minister Phan Van Giang in Vietnam about the expansion of bilateral military cooperation in the future, emphasizing the United States' commitment to the Southeast Asia region together with the U.S. Vice President Harris's visit in August of the same year.

Vietnam and Russia continue to strengthen cooperation in the area of national defense, with Vietnam being dependent on Russia for the majority of its defense equipment. In April 2018, the two countries signed a military and technical cooperation roadmap, while in July 2019, a Vietnamese naval vessel visited the port of Vladivostok for the first time. In December 2019, a submarine rescue vessel from Russia's Pacific Fleet visited the port of Cam Ranh and participated in the first bilateral submarine rescue exercise.

 Section 5-5-5 (1) (Relations with Asian Countries)

Vietnam and China, under their comprehensive strategic cooperation partnership relations, proactively conduct high level government official exchanges while the countries have conflicts over territorial sovereignty in the South China Sea.

The defense white paper published in November 2019 demonstrates an awareness that Vietnam and China need to resolve the territorial disputes with special precaution, avoiding negative impacts on general peace, friendship, and cooperation for development between the two countries. As such, it recognizes that the two countries should continue negotiations and consultations to find peaceful solutions on the basis of international law.

Vietnam and India have been deepening their cooperative relationship in a broad range of areas, including security and economy. In the area of defense cooperation, it is noted that the Indian Armed Forces support the training of Vietnam's Navy submarine personnel and Air Force pilots, and Indian Navy vessels make friendly visits to Vietnam. In September 2016, Prime Minister Modi became the first Indian prime minister to visit Vietnam in 15 years. During the visit, an agreement was reached on raising the status of the bilateral relationship to a comprehensive

strategic partnership, while an announcement was made concerning a loan of US\$500 million for deepening defense cooperation. In addition, the two countries contemplate further promotion of bilateral defense

cooperation through Defense Minister meetings, etc.

 Chapter 4, Section 5-1 (Trends Related to the “Principle of the Freedom of the High Seas”)

3 Military Modernization in the Region

In recent years, Southeast Asian countries have increased their defense spending against the backdrop of economic development and other reasons, and are modernizing their military forces, focusing on introducing equipment such as submarines and fighters, including fourth-generation modern fighters. On the other hand, some countries have announced defense budget cuts and postponements of equipment procurement in consequence of the COVID-19 pandemic.

Although Indonesia concluded a contract with Russia to procure eleven Su-35 fighters in February 2018, they relinquished it in December 2021 for budgetary reasons. It is reported that Indonesia was under study about Rafale (France) and F-15 EX (United States) as alternatives. With the ROK, Indonesia concluded an agreement to purchase three ROK-made 209-class submarines, the third of which was reportedly produced in Indonesia and completed diving trials in January 2020. In January 2016, the two countries also concluded a detailed agreement on cost sharing and bilateral cooperation in the joint development of the 4.5 generation KF-X/IF-X fighter, which was, in the rollout ceremony of the first prototype, named as KF-21 in April 2021. Indonesia plans to receive 14 ScanEagle UAVs from the United States by March 2022. As well as showcasing Chinese CH-4 UAVs at an October 2019 celebration for Indonesian National Armed Forces Day, in December 2019 Indonesia unveiled the prototype Black Eagle UAV, a domestically produced unmanned aerial vehicle that has incorporated several aspects of China’s CH-4 UAV. In April 2020, Indonesia planned to reduce defense budget three consecutive years from 2022 to 2024 in consequence of the measures taken against the COVID-19 pandemic. The defense budget cutback of FY2022 established in August 2021 was about two percent from the previous year.

Malaysia announced a plan to build six indigenous LCSs. The first of these vessels was launched in August 2017. Furthermore, by December 2021, Malaysia introduced four littoral mission ships (LMSs) from

China. In June 2019, Malaysia announced that it was to receive 12 ScanEagle UAVs from the United States by March 2022.

In December 2019, Myanmar received a Kilo-class submarine, named Minye Theinkhathu, from India. The procurement of the country’s first submarine is attracting attention from neighboring countries.

The Philippines has taken steps in recent years to modernize its defense equipment against the backdrop of conflicts over territorial rights in the South China Sea.

In terms of air force capabilities, between November 2015 and May 2017, the Philippines successively introduced 12 FA-50PH light fighters purchased from the ROK. It is currently planning to initiate a multi-role fighter program. In addition, the Philippines received six A-29 light attack aircraft from Brazil as successors of aging OV-10 light attack aircraft in October 2020, and also held a delivery ceremony of eight US ScanEagle unmanned aerial vehicles in November 2020. Furthermore, a procurement contract for a supersonic cruise missile “BrahMos” from India was concluded in January 2022.

As for naval forces, the Philippines received three Hamilton-class frigates from the United States by 2016. The Philippines introduced two Indonesian-made landing dock vessels by 2017. In addition, two frigates were introduced from the ROK by March 2021. The August 2019 commissioning of a Pohang-class corvette received from the ROK marked the restoration of the antisubmarine capability that the Philippines had long lacked. That September, the Philippines conducted the DAGIT-PA multi-service military exercise involving the army, navy, and air force, during which the four AAV-7 assault amphibious vehicles that it had commissioned the previous June were operated.

Singapore is actively striving to modernize its forces. Today, it is one of the largest arms importers in the world.

It introduced 24 U.S.-made F-15 fighters by 2012 and also participates in the F-35 JSF Program. In January

2020, the U.S. Government officially approved the sale of F-35B fighter jets to Singapore and delivered the required certification notifying Congress of the sale.

As for Thailand, in July 2014, the country established the Submarine Squadron Headquarters. In April 2017, the Royal Thai Navy drew up a plan to purchase three Yuan-class submarines from China over the next 11 years, and the Thai Cabinet approved the purchase of one vessel. However, in April 2020, Thailand announced that it would postpone the procurement of two Yuan-class submarines from China in order to secure the budget for COVID-19 countermeasures. In addition, the Cabinet approved in September 2012 a plan to introduce two frigates. The first frigate was received from the ROK in December 2018. In September 2019, Thailand signed an agreement to purchase a Type 071 landing platform

dock from China. In addition, by 2013, Thailand had introduced 12 Swedish-made JAS-39 Gripen fighters and received 35 of the 60 Stryker armored vehicles purchased from the United States.

By January 2017, Vietnam successively introduced six Russian-made Kilo-class submarines. By February 2018, Vietnam started the operation of four Russian-made Gepard-class frigates. As for its air force capabilities, Vietnam started to successively introduce Russian-made Su-30 fighters in 2004, and to date, the total number of delivered Su-30 fighters came to 36. In January 2020, it was reported that Vietnam had ordered 12 Yak-130 training aircraft from Russia. It is also due to receive six ScanEagle UAVs from the United States by March 2022.

4 Intra-and Extra-Regional Cooperation

ASEAN member states utilize ASEAN as the multilateral security framework of the region. ASEAN holds mechanisms such as the ARF and ASEAN Defense Ministerial Meeting (ADMM), which provide opportunities for dialogue on security issues. Furthermore, ASEAN has made efforts to improve the security environment in the region and promote mutual trust, for example, by holding the ASEAN Militaries' Humanitarian Assistance and Disaster Relief Table-Top Exercise (AHR). In addition, ASEAN attaches importance to expanding its relations with countries outside of the region. It holds the ADMM-Plus framework, a platform that adds eight non-ASEAN countries including Japan to ADMM, under which humanitarian assistance and disaster relief (HA/DR) exercises have been conducted. ASEAN and the United States held their first ASEAN-U.S. Maritime Exercise (AUMX) in September 2019. With China, ASEAN held the first naval table-top exercise in August 2018, and the first naval field training exercise in October 2018. In relation to this, it was reported that China requested during the meeting for the formulation of Code of the Conduct of Parties in the South China Sea (COC) to include a clause on regular implementation of China-ASEAN joint military exercises and a clause stating that no military exercises shall be held jointly with countries from outside the region, unless the parties concerned are notified beforehand and express no objection.

Furthermore, ASEAN countries conducted the first Naval Cooperative Exercise with Russia in inshore waters of Indonesia in December 2021.

At the June 2019 ASEAN Summit, ASEAN announced the ASEAN Outlook on the Indo-Pacific (AOIP), which is based on such principles as ASEAN centrality, openness, and transparency amid dynamism in the Asia-Pacific and Indian Ocean regions, and expresses the intention to promote peace, stability, and prosperity in the Indo-Pacific region. In addition, in April 2020, the Special ASEAN Plus Three (Japan-China-ROK) Summit on Coronavirus Disease 2019 (COVID-19) was held in a video teleconference format, and countermeasures against the COVID-19 pandemic were also discussed at the ASEAN Summit and the ADMM held later.

Section 8 South Asia

1 India

1 General Situation

With a population of more than 1.3 billion on its vast land, India is the world's largest democratic country. It has achieved steady economic growth in recent years, and has significant influence in the South Asian region. Also, it is located in the middle of the Indian Ocean, which is of strategic and geopolitical importance in terms of sea lines of communication, connecting the Asia-Pacific region with the Middle East and Europe. India has increased its presence as a geopolitical player, while the international community in return has increasingly high expectations for the country's role.

On the diplomatic front, the second Modi administration that was inaugurated in May 2019 has maintained the neighborhood first policy, which emphasizes strengthening relations with South Asian countries, while expanding the focus of strengthening India's external relations to the Asia-Pacific region, in accordance with the "Act East" policy. In addition, the administration has carried out proactive foreign policy, placing priority also on India's relations with the United States, Russia, and Europe, among other areas. In the defense domain too, the administration has attached importance to ensuring maritime security, especially in the Indian Ocean, and deepened collaboration with other countries.

India has non-demarcated border issues with China and Pakistan. There are also concerns about the activities of ultra-leftists and secession and independence movements, the movements of Islamic extremists stationed across the India-Pakistan border, as well as terrorist attacks gaining momentum due to changing situations in Afghanistan. Accordingly, defending its land borders and tackling the threat of domestic terrorism remain major concerns for India. Furthermore, there has been a strong recognition of expanding activities of China in the Indian ocean.

2 Military Affairs

To address these issues, India has recently been energetically working on reorganizing its armed forces and modernizing military equipment.



India's first indigenous aircraft carrier Vikrant (Indian Navy)

In December 2019, the Ministry of Defence established the Department of Military Affairs, for the best use of military capabilities. Military procedures are being worked out to integrate defense planning, procurement and operations. And the department is promoting integration of the three services: army, navy and air force. Although the details have not been announced publicly, in August 2021, Defence Minister Singh said that the creation of Joint Commands was a major structural reform, and the progress of which is progressing rapidly.

Indian Army is the world's largest ground force with about 1,240,000 personnel, and recently it has been pursuing procurement of advanced equipment such as main battle tanks, howitzers, and UAVs. In addition, as a part of the "Land Warfare Doctrine - 2018," it has been organizing Integrated Battle Groups (IBGs), which comprise about 5,000 personnel from infantry, air defense, armoured and logistics units, all backed by attack helicopters, aiming for rapid operation of forces.

In the "Indian Maritime Security Strategy" published in 2015, Indian Navy defines "Sea Control" as a central concept of naval operations and aircraft carriers as a central concept of Sea Control, and it also mentions building three aircraft carrier battle groups. The country's second and first indigenously constructed conventional-powered aircraft carrier "Vikrant" conducted sea trials in August 2021, and it is expected to be commissioned in August 2022. Indian Navy also places an importance

on “Sea Denial” through means such as submarine operations. In cooperation with France, six diesel-electric attack submarines have been built domestically, and the fourth submarine Vela was commissioned in November 2021. Presence in the Indian Ocean is also being reinforced. On Andaman and Nicobar Islands, where the only one joint command of Indian forces is established, additional asset deployment is under consideration and existing bases are reportedly planned to be expanded. In addition, it is reported that a naval facility is under construction in Agalega Islands of Mauritius.

Indian Air Force has 35 French-made Rafale fighter aircraft as of the end of February 2022. The second Rafale squadron was established in July 2021. Besides, the test launch of the air-launched supersonic cruise missile “BrahMos” from a Su-30MKI fighter aircraft was successfully conducted in December of the same year. India is steadily strengthening its air power. Furthermore, it is reported that delivery of Russian-made S-400 surface-to-air missiles (S-400) started from November of that year, and that the first unit will be deployed in Punjab state adjacent to Pakistan.

India is a nuclear-weapon state with 156 nuclear warheads as of January 2021, and based on the nuclear doctrine of 2003, it adheres to the following policies: credible minimum deterrence, the no-first-use nuclear policy, no use against non-nuclear weapon nations, and maintaining the unilateral moratorium on nuclear tests that it announced immediately after the nuclear test in 1998. At the same time, it has been promoting development, performance improvement, and deployment of various ballistic missiles and cruise missiles.

3 Relations with Other Countries

(1) Relations with the United States

India is actively striving to strengthen bilateral relations with the United States. When Prime Minister Modi visited the United States in June 2016, the United States recognized India is a “Major Defense Partner,” and in August of the same year, in a joint statement of the U.S. and Indian defense ministers, the United States agreed to elevate defense trade and technology sharing with



U.S.-India Summit Meeting [CNP/Jiji Press Photo]

India to a level commensurate with its closest allies and partners. In the first U.S.-India “2+2” Meeting held in September 2018, the ministers came to an agreement to hold the meeting every year. During the summit meeting held in India in February 2020, both countries confirmed “Comprehensive Global Strategic Partnership” between them, and pledged to deepen defense and security cooperation. In September 2021, the first face-to-face summit meeting by Prime Minister Modi and President Biden was held along with the Japan-Australia-India-U.S. (QUAD) summit meeting.

Since 2016, India and the United States signed Logistics Exchange Memorandum of Agreement (LEMOA), and concluded the Communications Compatibility and Security Agreement (COMCASA) as well as the Basic Exchange and Cooperation Agreement (BECA). In addition, Indian forces have strengthened its international interoperability through bilateral/multilateral training and exercises such as Malabar¹ which is held regularly with the United States and Japan, and first tri-service exercise “Tiger Triumph” was held in November 2019. Furthermore, the United States has become one of India’s major equipment suppliers.² The amount of bilateral defense trade increased from less than US\$1 billion in 2008 to over US\$20 billion in 2020. Meanwhile, the United States repeatedly voiced concern about India’s procurement of the S-400 from Russia, expressing a possibility of applying the Countering America’s Adversaries Through Sanctions Act.³ Attention will be paid to the moves of these two

1 Malabar was initially a bilateral maritime exercise between the United States and India, while Japan has participated in this exercise in 2007. From 2017 to 2019, Malabar was conducted as a trilateral exercise among Japan, the United States and India. In 2020 and 2021, Malabar was conducted as a quadrilateral exercise by involving Australia.

2 According to the statistics in SIPRI YEARBOOK 2020 and 2021.

3 The Countering America’s Adversaries Through Sanctions Act (CAATSA) signed in the United States in 2017 prescribes the imposition of sanctions against individuals or entities engages in a significant transaction with an organization related to Russian defense or intelligence agencies. The United States imposed sanctions on Turkey’s Presidency of Defence Industries (SSB) and SSB President pursuant to CAATSA for procuring the S-400 in December 2020.

Column

Regarding the deployment of Indian and Chinese long-range missiles and other circumstances

China and India share a border of approximately 3,500 kilometers across the Himalayas. However, as the border is not demarcated, the Line of Actual Control (LAC) has served as a temporary boundary. While clashes between Chinese and Indian militaries in the border region have occurred sporadically, June 2020 saw casualties to both sides for the first time in forty-five years. Confrontations continue across the LAC, and it has been pointed out that both countries are proceeding with the development and deployment of medium- and long-range missiles, while also building up various types of assets including surface-to-air missiles, and deploying additional aircraft at neighboring bases.

China possesses missiles with many different ranges, and it is pointed that DF-31 intercontinental ballistic missiles and DF-26 medium-range ballistic missiles have been deployed at Rocket Force bases in Sichuan province and Yunnan province, etc. And it is believed that they cover a range that includes India. It was reported in August 2020 that China had built a new missile base near Mount Kailash on the Tibetan Plateau, to which it deployed DF-21 medium-range ballistic missiles. It is said that the missile has a maximum range of 2,150 kilometers. And it is believed to be capable of reaching as far as southern India, including New Delhi, if launched from the base. In the annual report "Military and Security Developments Involving the People's Republic of China" released in 2021, the U.S. Department of Defense indicated that People's Liberation Army Rocket Force launched more than 250 ballistic missiles for testing and training in 2020, which was more than the rest of the world combined. In addition, China is also believed to be promoting the development of hypersonic glide vehicle. It is considered that the country will continue to work on strengthening its missile capability.

 See Section 2-2-5 (2) (Nuclear and Missile Forces)

Meanwhile, India has reportedly deployed the supersonic cruise missile "BrahMos" developed jointly with Russia at strategic points along the LAC. The missile is announced as having a range of 290 kilometers, however, in July 2021 it was reported that the flight range will be extended to 800 kilometers. The "BrahMos-A," which can be launched from Su-30MKI fighter aircraft, is said to be under final phase of development. In addition, India has been proceeding with the development and introduction of the Agni medium-range ballistic missile series. Agni-I, Agni-II, and Agni-III have already been deployed, and in October 2021, Agni-V was successfully test-fired. As this

missile has a range of 5,000 kilometers covering most of China's land area, it is also called "China Killer." Moreover, India is also proceeding with the development of short- and medium-range new generation ballistic missiles using new technologies. In 2021, India successfully test-flied "Agni P", which has a range of 1,000 to 2,000 kilometers, and "Pralay," which has a range of 150 to 500 kilometers. The country has also embarked on the development of hypersonic weapons. It is believed that India is steadily working on developing these missiles and weapons in line with the government's stated policy to having "credible minimum deterrence."

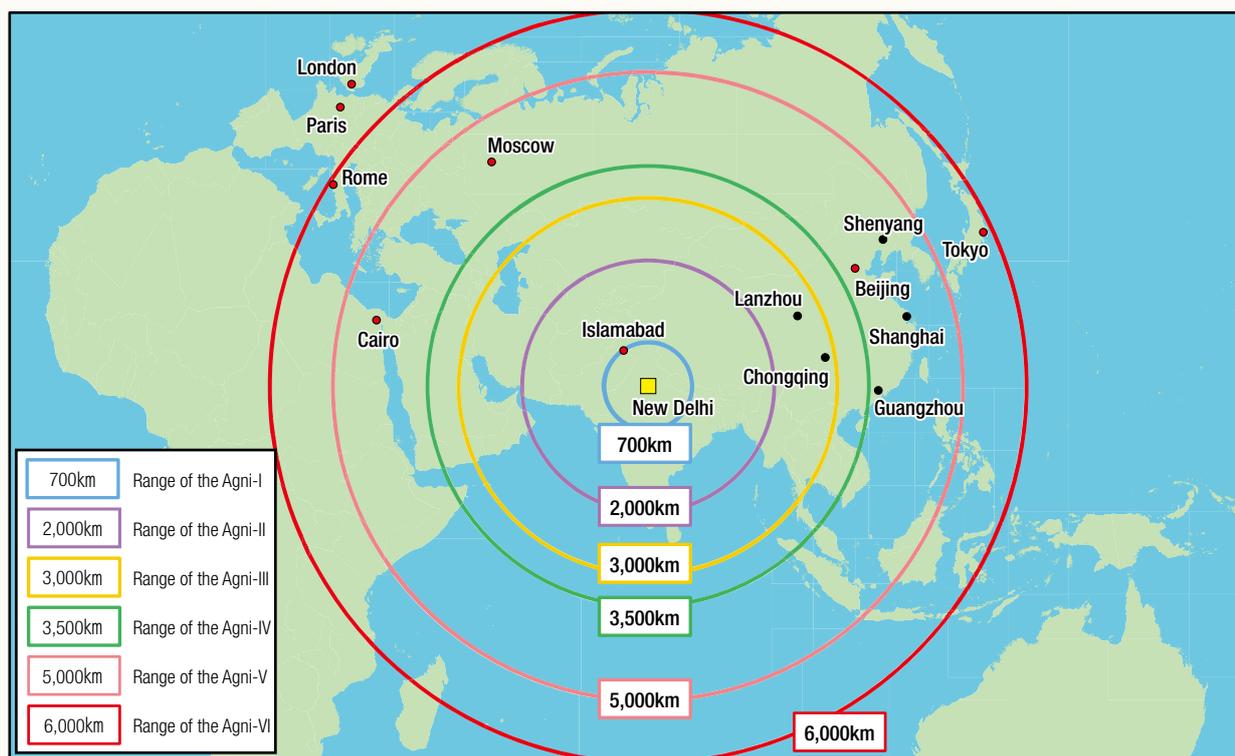
While the standoff along the LAC has not resolved, the two countries will likely continue to develop, test, and deploy medium- and long-range missile weapons in an effort to improve missile capabilities. Although both China and India have declared no first use of nuclear weapons, the acquisition of medium- and long-range precision strike capabilities that can be loaded with



Flight test of the new generation ballistic missile "Agni P" [Ministry of Defence of India]

nuclear warheads may influence not only bilateral relations across the LAC, but also beyond the region. It is necessary to

continue to pay close attention to the two countries' missile development and deployment status.



Range of Ballistic Missiles from India (New Delhi) (image)

Note 1: The figure above is for illustrative purpose, showing the range of each missile from New Delhi.

Note 2: The Agni-I, Agni-II, and Agni-III have been deployed, while the Agni-IV, Agni-V, and Agni-VI are believed to be under development.

countries over induction of the S-400.

(2) Relations with China

See Section 2-3-4 (3) (Relations with South Asian Countries)

(3) Relations with Russia

See Section 5-5-5 (1) (Relations with Asian Countries)

(4) Relations with South Asian and Southeast Asia Countries

In the “Transformational Diplomacy” published in June 2015, India clearly set out the neighborhood first policy, aimed at strengthening relations with other South Asian countries. In the virtual bilateral summit held in September 2020, Prime Minister Modi and Sri Lanka President Rajapaksa agreed to strengthen cooperation between armed forces of the two sides including maritime security cooperation and support to Sri Lanka in the spheres of defense and security. In bilateral relationship with Maldives, defense and security has been a major area of cooperation. Especially, India supports Maldivian

National Defence Force (MNDF) in defense training. In addition, Prime Minister Modi visited Bangladesh to celebrate the Golden Jubilee of the Independence in March 2021, and held a meeting with Prime Minister Hasina. Both Prime Ministers emphasized on enhancing defense cooperation in training and capacity building.

Based on its Act East policy, India continues to engage with Southeast Asian nations and other countries in the Asia-Pacific region on a bilateral, regional, and multilateral basis, promoting economic and cultural relations, as well as pursuing the development of strategic relationships. Leveraging its experience of using Russian equipment, India provides Vietnam, Malaysia, and other users of such equipment with support for capacity building. Furthermore, India conducts joint exercises regularly with countries. The third trilateral maritime exercise “SITMEX” was conducted by India, Singapore, and Thailand in November 2021.

2 Pakistan

1 General Situation

Wedged between the powerful South Asian nation of India and politically-unstable Afghanistan, and sharing borders with China and Iran, Pakistan is placed in a geopolitically significant and complex position. In particular, Islamic extremists conduct activities across the Pakistan-Afghanistan border, and Pakistan's attitude towards the war against terrorism draws much attention from the international community. In this regard, although Prime Minister Khan welcomed the withdrawal of the U.S. Forces from Afghanistan and the establishment of Taliban's control saying that the Afghans "broke shackles of slavery" in August 2021, Pakistan continues to install fences called "fence of peace" on the non-demarcated border between Pakistan and Afghanistan to secure the area, provoking a backlash from the Taliban. It is necessary to continue watching related movements closely, because this kind of Pakistan's complicated attitude towards the Taliban can affect not only their bilateral relationship, but also the future of the whole security environment in the surrounding area, including the war against terrorism.

2 Military Affairs

Pakistan takes the position that maintaining nuclear deterrence against the nuclear threat posed by India is essential to ensure national security and self-defense. It is believed to have begun nuclear development in the 1970s and conducted its first nuclear test in 1998.

Pakistan has been working on development of ballistic missiles and cruise missiles capable of carrying nuclear warheads, and conducted its first test launch of the ballistic missile "Ababeel," which is capable of delivering multiple warheads, using Multiple Independently-Targetable Re-entry Vehicle (MIRV) technology, in January 2017. Like it did in the previous year, it conducted another test fire of the submarine launched cruise missile "Babur" in March 2018. The country is thought to be steadily increasing the capabilities of its missiles. For example, in 2021, it conducted a training launch of surface-to-surface ballistic missile "Ghaznavi" in August, a flight test of surface-to-

surface ballistic missile "Shaheen-1A" in November, and a launch test of enhanced range version of "Babur Cruise Missile 1B" in December.⁴

Pakistan has been developing a relationship with China in the military sector in recent years, and depends more and more on China about, for example, the modernization of its equipment. For instance, Pakistan jointly developed the Al-Khalid tank and the JF-17 fighter aircraft with China. It is currently using the 110 indigenously produced JF-17 Block I / II aircraft, and has begun manufacture of the JF-17 Block III. In March 2022, it officially announced the induction of Chinese J-10C aircraft, and it is said that the aircraft will serve as a countermeasure to Indian Air Force's deployment of Rafale fighter aircraft. Pakistan reached an agreement with China to purchase eight submarines, which Pakistan is positioning as the "backbone of the Navy," and four of them will be built in Pakistan under transfer of technology. While construction in Pakistan was started in December 2021, it is reported that the first submarine being built in China will be delivered in 2022 and the whole project will be completed by 2028. In October 2021, Pakistan inducted surface-to-air missile system HQ-9/P from China to enhance its air defense capability.

The "National Security Policy of Pakistan 2022-2026," Pakistan's first comprehensive policy document, was formulated in December 2021. It mentions security in its border territory and the Indian Ocean, and says that the nation will enhance information and cyber security capability and create a capacity to combat against hybrid warfare such as disinformation and influence operations. Attention will be paid to future efforts.

3 Relations with Other Countries

(1) Relations with the United States

Besides supporting the activities of the U.S. Forces in Afghanistan, Pakistan had cooperated with the war on terror by launching mop-up operations against Islamic extremists in the Pakistan-Afghanistan border area.

Meanwhile, Pakistan urged the United States to immediately end its drone attacks on Islamic extremists

⁴ Reports specify these missiles as follows. Ababeel: a three-stage solid-fuel ballistic missile with a range of about 2,200 km. Babur (Hatf 7): a turbo-jet super sonic cruise missile with a range of about 700 km. Ghaznavi (Hatf 3): a single-stage solid-fuel ballistic missile with a range of about 300 km. Shaheen-1A (Hatf 4): a single-stage solid-fuel ballistic missile with a range of about 900 km.

in Pakistani territory, and the Pakistani Government had protested repeatedly.

The United States, on the other hand, has condemned Pakistan for allowing Islamic extremists in Afghanistan to take haven, which poses a threat to the United States. In August 2017, U.S. President Trump stated, “No partnership can survive a country’s harboring of militants and terrorists who target U.S. Service members.” After that, the United States announced the suspension of Foreign Military Assistance provided by the Department of State, security assistance provided by the Department of Defense (DOD) and the DOD’s Coalition Support Funds.

Amid ongoing tense relations between the two countries, Prime Minister Imran Khan visited the United States in July 2019 and held his first summit meeting with President Trump. During these talks, they discussed anti-terrorism measures and peace in Afghanistan, as well as ways of restoring the two countries’ relationship. Just before Prime Minister Khan’s visit to the United States, Pakistan sought to highlight its anti-terrorism efforts to the United States by arresting Hafiz Saeed, a co-founder

of the Pakistan-based Islamist extremist group Lashkar-e-Taiba, on whom the U.S. Government had placed a bounty for being a ringleader of the 2008 Mumbai attacks. After the talks, Prime Minister Khan disclosed his feeling that the two countries had gained a deeper understanding of each other, stressing that “Pakistan will do everything possible to ensure that this [Afghan] peace process goes forward.”, with the desire for an improvement in relations evident in such developments.

It is said that no summit meeting was held by the two countries after inauguration of the Biden Administration in January 2021, and Pakistan declined the invitation for the Summit for Democracy hosted by the United States in December of the same year. On the other hand, Pakistan stated that continued cooperation with the United States will remain crucial for regional peace and stability in the “National Security Policy of Pakistan 2022-2026.” Attention will be paid to the future relationship of the two countries.

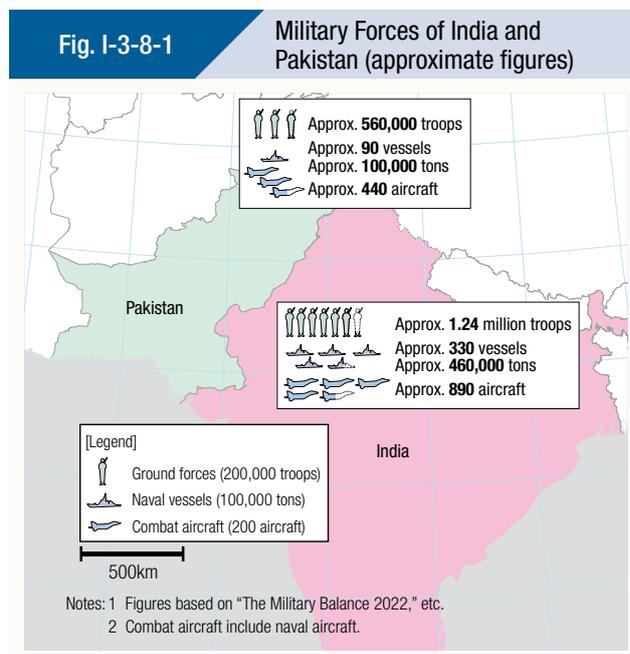
(2) Relations with China

 Section 2-3-4 (3) (Relations with South Asian Countries)

3 Disputes over the Sovereignty of Kashmir

India and Pakistan have disputes over the sovereignty of Kashmir,⁵ and have had three armed conflicts of significant scope. The territorial dispute over Kashmir has long been in contention between India and Pakistan, with dialogues repeatedly resuming and suspending due to frequent cross-border attacks along the Line of Control (LOC). However, in February 2021, a joint statement was released and it says that both countries agreed for observance of cease firing along LOC from midnight on the 24th of that month.

 Fig. I-3-8-1 (Military Forces of India and Pakistan (approximate figures))



⁵ India asserts the accession of Kashmir to India, based on the Instrument of Accession document by which the ruler of Kashmir acceded to India at the time of Pakistan’s independence, and contends that this matter should be resolved through bilateral negotiations on the basis of the 1972 Simla Agreement (an agreement on the peaceful resolution of disputes and the withdrawal of their military forces that was reached following a summit meeting held in Simla in northern India). On the other hand, Pakistan declares that this should be decided through a referendum, in line with a 1948 UN resolution. The two countries have taken a significantly different fundamental stance towards the resolution of the dispute.

Section 9 Europe and Canada

1 General Situation

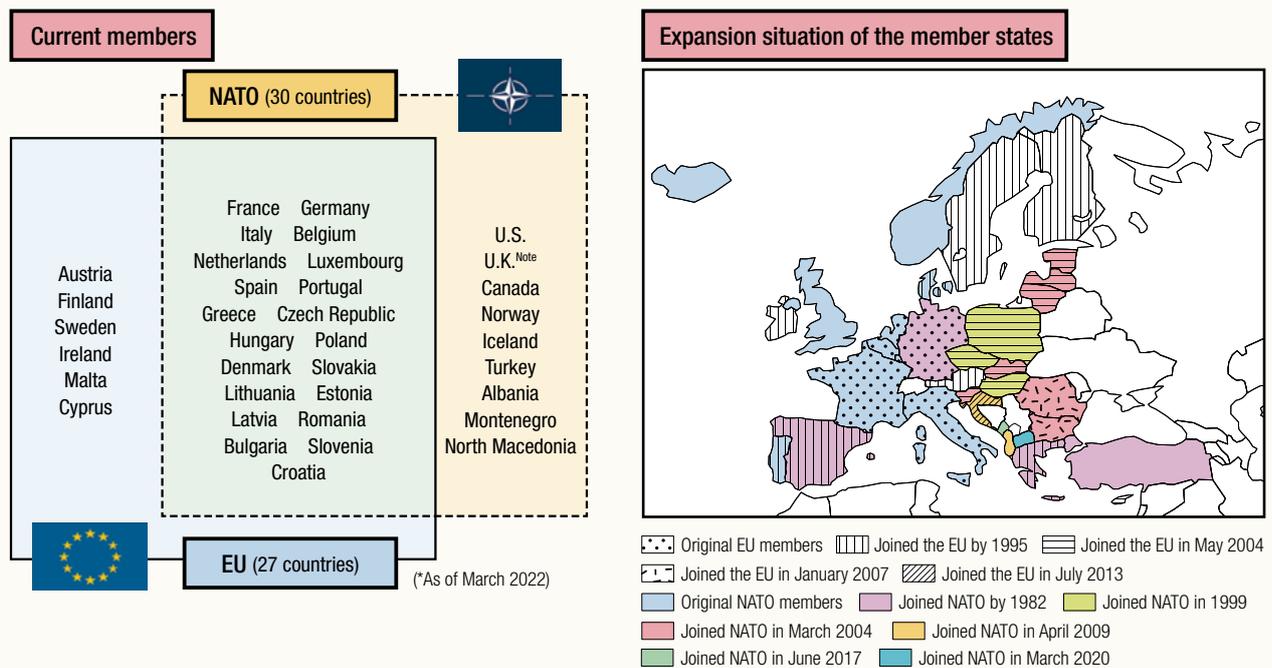
With the end of the Cold War, many European countries now recognize the need to address diverse security challenges, such as outbreaks of regional conflicts within and around Europe, the rise of terrorism, the proliferation of WMDs, and the growing seriousness of cyber threats. At the same time, these countries had recognized that the threat of large-scale aggression by other countries had disappeared. Nevertheless, since the heightening of tensions in Ukraine in February 2014 and particularly with the aggression against Ukraine that began in February 2022, there is a growing need to revisit existing strategies and plan new concepts in order to deal with Russia’s unilateral changes to, and attempts to change the status quo by force as well as “hybrid warfare.” With regard to international terrorism, the continuity of threats has been recognized and there is a continuous need to take counterterrorism measures. In

addition, border security problems remain a challenge, including those regarding refugees and migrants that have rapidly increased due to Middle East turmoil such as the prolonged civil war in Syria.

To respond to such challenges and situations, Europe has sought to further strengthen and expand multilateral frameworks, such as NATO and the EU. At the same time, it is working to contribute to the security and stability of the international community by proactively participating in activities outside the European region. Moreover, steps are taken at the national level by reviewing security and defense strategies, reforming national defense systems, and strengthening bilateral and multilateral defense and security cooperation.

 See Fig. I-3-9-1 (Expansion Situation of NATO/EU Member States)

Fig. I-3-9-1 Expansion Situation of NATO/EU Member States



Note: The United Kingdom left the EU on January 31, 2020.

2 Enhancement of Multinational Security Frameworks

1 NATO

Founded for the core task of collective defense among member states, NATO has expanded the scope of its activities to conflict prevention and crisis management since the end of the Cold War.

In the NATO Summit in November 2010, NATO adopted a new Strategic Concept for the first time in 11 years and prescribes three core tasks as follows: (1) collective defense in accordance with Article 5 of the Washington Treaty; (2) crisis management including conflict prevention and post-conflict stabilization and reconstruction assistance; and (3) cooperative security including active contribution to arms control, disarmament, and non-proliferation. In the NATO summit meeting of June 2021, NATO adopted the “NATO 2030” initiative, which seeks to strengthen NATO’s functions. The communique of this meeting mentions efforts to address all of the major challenges faced by NATO, such as the rise of China, cyber attacks, asymmetric warfare including disinformation campaigns, threats in the space domain, disruptive technologies, climate change, and Russia’s active military activities.

Particularly, China’s stated ambitions and assertive behavior were specified as challenges against the rules-based international order, with allusion to concerns about its military cooperation with Russia, its frequent lack of transparency, and use of disinformation. NATO clearly stated its stance to keep its engagements with China in order to defend the security interests of the alliance. Furthermore, to support the rules-based international order, it said that the cooperation would be enhanced with partners in Asia-Pacific region including Australia, Japan, New Zealand, and the ROK.

With regard to Russia, although there were some differences in perception among member countries in the past because of dissimilarities in background such as economical relationship or geological distance with Russia, now they recognize Russia’s aggressive actions as a threat to security in Europe and the North Atlantic area. Russia’s aggression against Ukraine in February 2022 acted as a big alarm for these countries.

Following Russia’s development of “hybrid warfare”

as well as the frequent “unusual flights” of Russian Armed Force aircraft over northern and eastern Europe, including the Baltic states, NATO and member states have recognized the threat posed by Russia and are working to bolster deterrence. At the NATO Summit in September 2014, leaders adopted a joint declaration demanding Russia to retract its “annexation” of Crimea and adopted the Readiness Action Plan (RAP) for enhancing existing readiness forces.¹ Based on this plan, NATO has continued to maintain its presence in eastern allies, while steps have been taken to significantly improve the readiness of the existing multinational NATO Response Force (NRF) and create the Very High Readiness Joint Task Force (VJTF) that can be mobilized within two to three days. Furthermore, at the NATO Summit in July 2016, members decided to deploy four multinational battle groups to the three Baltic nations and Poland on a rotational basis. These became fully operational in 2017. At the NATO Summit in July 2018, members decided to put in place a readiness initiative called the “Four Thirties,” to maintain a situation in which, by 2020, 30 mechanized battalions, 30 air squadrons, and 30 combat vessels can be ready to be used within 30 days or less. They also decided on reforms of the command headquarters, establishing the Joint Force Command Norfolk in the United States with the objective of strengthening the defense of Atlantic sea lines of communications between the United States and Europe, as well as establishing the Joint Support and Enabling Command in Ulm, Germany, to expedite the transport of troops and equipment within and outside Europe.

With regard to the rising tensions in Ukraine, NATO Secretary General Stoltenberg rejected Russia’s demand to make Ukraine abandon its wish to join NATO in December 2021, by showing an uncompromising stance that Ukraine and NATO member countries have the right to choose their own paths as sovereign nations.

Moreover, during an extraordinary summit meeting held in February 2022, NATO announced to deploy NATO Response Force (NRF) to the eastern part of the alliance to provide reassurance. During a summit meeting in March 2022, they decided to establish four additional battlegroups in Bulgaria, Romania, Hungary,

¹ The RAP was approved as one of the concrete efforts of the Connected Forces Initiative (CFI). The CFI is intended to provide a framework for conducting joint training and exercises among member states. Furthermore, it is designed to strengthen joint training among member states and with partner countries, enhance interoperability, and make use of advanced technology.

and Slovakia.

Alongside collective defense, NATO's core tasks include crisis management operations both within and outside the region. In the Mediterranean, a permanent maritime force has been deployed to the Aegean Sea since February 2016 due to increase in the influx of illegal immigrants transiting the Mediterranean. This force monitors the influx of illegal immigrants and shares information with Turkey, Greece, and other countries. Also, Operation Sea Guardian, which focuses on crisis management, was launched in November 2016 and a wider array of missions including counterterrorism and capacity building assistance have been conducted.

Since January 2015, NATO had been leading the Resolute Support Mission (RSM), whose primary tasks were to provide training, advice, and assistance to the Afghan National Defense and Security Forces (ANDSF), deploying about 17,000 personnel in the country. However, NATO completed the withdrawal of its forces by the end of August 2021, after the United States declared its withdrawal from Afghanistan. During evacuation operations of nationals and local staff when the Taliban assumed control, the U.K. secured Kabul Airport with the U.S. and evacuated approximately 15,000 people by C-17 transport aircraft while some major NATO member states like France, Germany, and Italy also deployed their assets to evacuate a number of people.

With regard to the Islamic State of Iraq and the Levant (ISIL), NATO has dispatched early warning and control aircraft forces and implemented NATO surveillance and reconnaissance missions since October 2016. It is also supporting security units of Iraqi Armed Forces on training and capacity building. At the February 2020 Meetings of NATO Ministers of Defence, participants agreed to enhance NATO's training mission in Iraq, to contribute to the stabilization of the situation in the Middle East. In addition, at the February 2021 Meetings of NATO Ministers of Defence, participants reached an agreement regarding NATO's training mission in Iraq to increase the number of participating personnel from approximately 500 to 4,000 and expand the mission locations. NATO is also carrying out missions in Kosovo and other countries.

In light of the expansion of NATO's role from these security environment changes, and the expanding gap of

defense expenditure between the United States and other member states, NATO member countries in 2014 agreed on the goal to allocate 2% or more of their GDP to defense spending by 2024. The London Declaration was adopted at NATO's 70th anniversary summit in December 2019. The participating leaders reaffirmed therein their solemn commitment to collective defense as enshrined in Article 5 of the Washington Treaty and stated that they will increase defense expenditure further.

2 EU

The EU has enhanced its security initiatives under the Common Foreign and Security Policy (CFSP) and Common Security and Defence Policy (CSDP),² and in June 2016, the Global Strategy for the European Union's Foreign and Security Policy detailing the EU's fundamental approach to foreign and security policy was adopted by the European Council for the first time in approximately 10 years. This document calls for initiatives towards enhancing the EU's internal and external resilience against threats to public order in Eastern Europe, and the threat of terrorism or other events in the Middle East and Africa, in accordance with the principles of rules-based order and democracy. In November 2016, the European Commission released an action plan for reinforcing defense cooperation in Europe, including the establishment of the European Defence Fund (EDF).

In December 2017, the Permanent Structured Cooperation (PESCO) was launched as a defense cooperation framework composed of 25 countries among the member countries. Under this framework, the participating countries finance and cooperate in joint projects including the joint development of equipment and infrastructure that will contribute to developing readiness. It is expected that the framework would strengthen the EU's defense capabilities. In this way, the EU is trying to enhance capabilities for undertaking security and its strategic independence by responding to the present and future security demands in Europe.

Furthermore, the EU is enhancing its engagement to the Indo-Pacific region, disclosing its first Indo-Pacific strategy in April 2021 followed by a joint communication detailing it in September 2021. This joint communication says that a significant military build-

² The EU, although it has a property of non-binding multilateral cooperation, introduced the CFSP, which covers all areas of foreign and security policy based on the Treaty of Maastricht, which took effect in 1993. In June 1999, the European Council decided to implement the European Security and Defence Policy (ESDP) to offer peacekeeping and humanitarian assistance activities in conflict areas, as a part of the CFSP framework. The Treaty of Lisbon, made effective in 2009, renamed the ESDP to CSDP and clearly positioned it as an integral part of the CFSP.

European countries' "incline" towards the Indo-Pacific region and the dispatch of naval vessels in rapid succession in 2021

In recent years, European countries have been strengthening their commitment to the Indo-Pacific region, with the European Union (EU) and major countries including the U.K., France, Germany, and the Netherlands publishing policy documents and similar regarding the region. 2021 in particular was a year that symbolized European countries' "incline" towards the Indo-Pacific region, with European vessels calling at Japanese ports one after another.

The United Kingdom dispatched its Carrier Strike Group 21 (CSG21) to the Indo-Pacific region from May 22, 2021. The carrier strike group was made up of ten multinational naval vessels, such as the destroyer USS "The Sullivans," the Royal Netherlands Navy's frigate HNLMS "Evertsen," and the state-of-the-art U.K. aircraft carrier HMS "Queen Elizabeth" at the center, as well as U.S and U.K. squadrons of mainly F-35s. Calling at Guam, Singapore, India, and elsewhere during its deployment of about 28 weeks, the carrier strike group carried out joint exercises with each country it visited. From September 4 to 8 that same year, the carrier strike group also called at Japanese ports including the U.S. Navy Base in Yokosuka, where it conducted multilateral exercises involving the five countries of Japan, the United States, the United Kingdom, the Netherlands, and Canada, and which included the Maritime Self-Defense Force's (MSDF) destroyer JS "Ise."

These activities by the United Kingdom can be seen as a reflection of the so-called post-Brexit "Global Britain" foreign policy of seeking economic and diplomatic stages in places around the world beyond Europe. The Indo-Pacific is an important region for the United Kingdom that accounts for almost 20% of its trade volume, therefore engagement in the region and securing freedom of navigation can be considered essential for U.K. national interests. In addition, prior to the dispatch of the carrier strike group, the United Kingdom released the "Integrated Review of Security, Defence, Development and Foreign Policy" in March 2021, a strategy document that established comprehensive policies on security and diplomatic affairs. This document touches on China's military expansion, assessing it in more depth than ever before using the phrase, "systemic competitor." In addition, it also includes a section titled "The Indo-Pacific tilt," in which it declares that the Indo-Pacific region is important for U.K. economy and security, and that over the next decade, the United Kingdom will build a larger and more steady presence than any other European country in the region to deepen its cooperation with its allies and other like-minded partners including Japan.

In light of these circumstances, the objective of the recent dispatch of the carrier strike group by the United Kingdom can be considered as a demonstration of the ocean projection capabilities of its aircraft

carriers, as well as a way of impressing other countries with the strength of its cooperation with its partners, including the U.S.-U.K. alliance and Japan. It also demonstrates the U.K.'s intention and capability to contribute to the stability of the Indo-Pacific region.

The French amphibious assault ship "Tonnerre" and the frigate "Surcouf" also docked at Japan on May 9, 2021. Both vessels were dispatched to the Indo-Pacific region as part of the ocean navigation exercise for officer candidates, Jeanne d'Arc 2021. From May 11 to 17 of the same year, the vessels conducted multilateral exercise called ARC21 involving Japan, the United States, Australia, and France, and in the Kirishima Maneuver Area in Kyushu in particular, the French Army carried out amphibious operation training together with the Japanese Ground Self-Defense Force (GSDF) and U.S. Forces Japan.

France announced a national defense strategy specifically for the Indo-Pacific region for the first time in June 2019. As part of the strategy, the situation was assessed as follows: China is seeking to change the power balance of the region with its growing influence, and thus, the strategic environment is deteriorating as the rivalry between the United States and China intensifies. France recognizes itself as an "Indo-Pacific nation" having territories and a population of approximately 1.65 million in the Indo-Pacific region. It is believed that France will continue to engage in the region in cooperation with its partners, such as Japan, the United States, Australia, and India, by dispatching assets and similar to defend those territories and the population.

The German Navy frigate "Bayern" called at a port in Tokyo on November 5, 2021. This was the first time in 16 years that a German warship had been dispatched to the Pacific Ocean since taking part in rescue activities during the Sumatra earthquake incident in 2005. It was also the first call at a Japanese port in about 20 years. After participating in NATO and EU maritime operations in the Mediterranean Sea and off the coast of Somalia, "Bayern" visited the shores of the Pacific Ocean. As well as engaging in monitoring ship-to-ship transfers by North Korea, a first for a German naval vessel, after calling at the port in Tokyo, "Bayern" also participated in multilateral exercise with countries including Japan and the U.S. After passing through the South China Sea and visiting countries in Southeast Asia and nearby, Bayern returned to its home base.

German Minister of Defense Annegret Kramp-Karrenbauer stated that the purpose of the dispatch of this naval vessel was to show Germany's presence in the Indo-Pacific region. Germany also approved the "Policy guidelines for the Indo-Pacific region" by Cabinet decision in September 2020, bolstering its stance on strengthening its

engagement in the Indo-Pacific region in terms of security policy as an advocate of existing rule-based international order. The guidelines declared that a unilateral hegemony and the consolidation of bipolar structures would be dangerous, particularly emphasizing cooperation with democracies and countries sharing the same values such as ASEAN, Japan, Australia, India, and ROK in an effort to continue diversifying cooperative relations with each country. This dispatch can be seen as aiming to proactively cooperate with partners by sending assets independently to achieve the existing rules-based international

order.

As in the above, the assets dispatched by each country come in different forms, and each country's aims of engaging in the Indo-Pacific region also differ, as seen from the respective strategic documents. However, all these countries share the intention to strengthen their engagement in the region in terms of security policy. Japan welcomes movements by European countries sharing universal values to contribute to the peace and stability of the region. We will also continue to monitor the situation closely.

up, including by China, and the display of force and increasing tensions in the East China Sea, South China Sea, and Taiwan Strait have a direct impact on European security and prosperity. With the aim of a rules-based international order, partnership with countries sharing the same values, including Japan, is needed, together with a reinforcement of relations with Taiwan, such as through trading and investments. In March 2022, the European Council adopted a “Strategic Compass” laying out a common strategic vision for security and defense policies in the next five to ten years. The document stated that the EU will establish a fully operational EU Rapid Deployment Capacity of up to 5,000 troops by 2025 for use in rescue and evacuation operations.

In response to the crisis in Ukraine, the EU has condemned the Russian military measures and has implemented economic sanctions against Russia after its “annexation” of Crimea in 2014. The EU has further implemented additional restrictive measures including economic sanctions since February 2022. In addition, the EU keeps up non-military engagements for Ukraine including significant financial support to help its political and economic reform. In January 2022, European Commission President Ursula von der Leyen announced an additional financial assistance of 1.2 billion euros which will help Ukraine “to address financing needs due to the conflict”. On the military front, the EU also announced assistance of 1 billion euros for the Ukrainian Armed Forces by the end of March 2022.

To deal with the threat of ISIL, the EU extends funds to carry out humanitarian assistance for Syria and Iraq. Additionally, the EU works with countries in regions such as the Middle East and North Africa to provide capacity

building assistance in counterterrorism measures, among other activities. In November 2015, in accordance with a request from France after the terror attacks in Paris, the EU, for the first time, activated the “mutual assistance clause” stipulating a mutual defense obligation, and EU member states provided their support to France.

Since 2003, the EU has proactively undertaken both military operations and nonmilitary missions under the CSDP.³ Operation Atalanta, the EU’s first maritime mission for counter-piracy, has been under way off the coast of Somalia and in the Gulf of Aden since December 2008. Under this mission, vessels and aircraft dispatched from each country protect ships in the area and conduct surveillance in these waters. In addition, those vessels and aircraft conduct joint training with the Self-Defense Forces (SDF) units. Since July 2017, the scope of activities has been expanded through the assignment of new missions, including reconnaissance on illegal transactions in crude oil exported from Libya and information sharing with relevant organizations on human trafficking. Since March 2020, a maritime operation in the Mediterranean, Operation IRINI, whose primary mission is to monitor the arms embargo against Libya, has been conducted.

3 Cooperation between NATO and the EU

Advancements have been seen in cooperation between NATO and the EU in addressing unprecedented challenges efficiently. At the NATO Summit in July 2016, a joint declaration was released citing hybrid threats, cybersecurity and other fields in which NATO and the EU should prioritize cooperation. The NATO Summit

³ These are called Petersberg tasks. They consist of: (1) humanitarian assistance and rescue missions; (2) peacekeeping missions; and (3) combat missions in crisis management, including peacemaking.

in July 2018 issued a joint declaration that identified substantial progress in NATO-EU cooperation and cited the mobility of military forces, counterterrorism and other fields for further cooperation. Based on these declarations, the EU's PESCO includes a project for developing arrangements for smooth movement of

military personnel and assets inside and outside the EU and is expected to contribute to NATO's quick military deployment in an emergency. In this way, NATO and the EU are advancing their cooperation in a manner to complement each other for the purpose of enhancing security initiatives.

3 Security/Defense Policies of European Countries and Others

1 The United Kingdom

After the end of the Cold War, the United Kingdom, perceiving that there is no direct military threat against the country, has advanced national defense reform with particular focus on improving its overseas deployment capability and readiness, in order to deal with new threats such as international terrorism and proliferation of WMDs.

In March 2021, the Johnson administration released the "Integrated Review of Security, Defence, Development, and Foreign Policy" (Integrated Review). It sets out a comprehensive strategy including foreign policy and development to adapt to a more competitive age under the post-Brexit diplomatic policy "Global Britain". As the trends that influence the United Kingdom and international order, the U.K. Government identified the following four contexts as particularly important: geopolitical shifts such as the growing importance of the Indo-Pacific; systemic competition between democratic and authoritarian values and systems; rapid technological changes; and transnational challenges, such as climate change.

In the same month, the British Ministry of Defence released a Defence Command Paper Presented to

Parliament, titled the "Defence in a Competitive Age," which supplements the Integrated Review and presents details of the U.K.'s defense. The Ministry of Defence proposed in this paper to increase the defense budget, prioritize investments in the newer domains of space and cyberspace, improve capacity of Marines, upgrade vessels and aircraft, and reduce the army troops to deal with various threats. In addition, the paper indicated the increase in the overall nuclear warhead stockpile and the implementation of enhancing nuclear deterrent capabilities.

The United Kingdom also expressed its intention to play more active roles in maintaining the international order, while maintaining and strengthening the relationship with the United States, European countries, and NATO, as well as noting the government's tilt to the Indo-Pacific. The U.K. Government showed its posture to work with Indo-Pacific partners to uphold freedom of navigation and international law, such as with the deployment of a carrier strike group led by aircraft carrier HMS "Queen Elizabeth" to the Indo-Pacific region in 2021, and capacity building and enhanced training with ASEAN countries and others. Recently, to assist in international efforts to monitor illicit maritime activities, including illegal ship-to-ship transfers with North Korean vessels, the Royal Navy frigate HMS "Argyll" conducted surveillance activities in sea areas surrounding Japan, including the East China Sea, in December 2018 and January 2019, while the frigate HMS "Montrose" did the same between late February and early March 2019 as well as frigate HMS "Richmond" in September 2021. Japan and the United Kingdom have also been cooperating in matters such as the sharing of information, with the aim of enhancing the effectiveness of UN Security Council resolutions.

In the Integrated Review, the United Kingdom stated its intent to deepen its engagement in the Indo-Pacific region in the decade ahead to establish a greater and



HMS Queen Elizabeth enters the port of Yokosuka

more persistent presence than any other European country. Since then, the United Kingdom announced it would deploy two patrol vessels in the area for forward presence, and attention will be focused on the U.K.'s moves in relation to its involvement in the region.

The U.K. government strongly condemns Russia's unilateral changes to, and attempts to change the status quo by force and has enhanced its support to Ukraine. It has deployed training teams to educate Ukraine Armed Forces since 2015 and is enhancing its support by providing weapons such as NLAW portable anti-tank missiles and by other means.

2 France

Since the end of the Cold War, France has focused on maintaining independence of its defense policies, while having led initiatives to enhance the defense structure and capability in Europe. It has worked on the development of its military capacity by streamlining and integrating military bases, dealing with operational requirements to strengthen its defense capability, as well as enhancing its intelligence capabilities and modernizing equipment required in the future.

The Defence and National Security Strategic Review announced by the Macron administration in October 2017 states that the threats that France faces, including domestic terrorism, the refugee issue, and the Ukraine crisis, are diversifying, increasing in complexity, and rapidly becoming more violent, and amidst the increasingly multipolar international system, competition is intensifying among major military powers and the danger of escalation is growing. Under these conditions, France will fulfill its duties within NATO, including for collective defense and contributing to reassurance and will take a leading role in efforts to strengthen the EU's defense capabilities. In June 2018, the Military Planning Law for 2019-2025 was enacted, consisting of four pillars - human resources, equipment modernization, contributions to Europe's strategic independence, and technological innovation - to materialize the national security strategy given in the Strategic Review. The law confirms a plan to allocate a total of approximately 300 billion euros to defense by 2025 to fulfill President Macron's commitment to the

goal of raising defense spending to 2% of France's GDP by 2025. France achieved the goal of making defense spending 2% of its GDP in 2020.

Having positioned the fight against ISIL as one of its top national defense priorities, France has been conducting airstrikes against ISIL in Iraq since September 2014 and in Syria since September 2015. The aircraft carrier "Charles de Gaulle" supported anti-ISIL operations while at sea in the eastern Mediterranean in April 2019 and was among the naval task force dispatched to the eastern Mediterranean for a month in January 2020 to provide similar operational support. Furthermore, French troops killed the top leader of an organization linked to Al Qaeda in Sahel region in June 2020. French-led "Takuba" task force, composed of European special forces, started its operation in July 2020. In addition, France has continued to provide education and training to the Iraqi Security Forces and Peshmerga, as well as humanitarian assistance for refugees.

In January 2020, France and seven other European nations, including the Netherlands and Denmark, issued a political statement supporting the creation of the European Maritime Awareness in the Strait of Hormuz (EMASOH) surveillance mission, which has been launched in response to a series of incidents affecting the safe passage of civilian vessels in the Gulf of Oman since May 2019.

Since France has territories in the Indo-Pacific region, it is the only EU member state that has continuous military presence in the region, with approximately 7,150 personnel and vessels permanently stationed. Placing importance on its commitment to the region, France points out in the Strategic Review the potential for a threat to interests, such as the freedom of navigation, due to the worsening strategic situation in the Asia-Pacific region, and clearly states that France will maintain its stance of protecting the sovereignty of its overseas territories in the Pacific Ocean and the Indian Ocean. Defence Strategy in the Indo-Pacific, which was published by Ministry of Armed Forces in June 2019, states that China's growing influence is shifting the balances of power in the Indo-Pacific region and highlights the importance of strengthening partnerships with the United States, Australia, India, and Japan⁴. In addition, France has proactively organized

⁴ Meanwhile, the French government strongly condemned the United States and Australia because of Australia's cancellation of the purchase contract for French-built submarines resulting from the implementation of AUKUS in September 2021, and temporarily recalled French ambassadors from Washington and Canberra.

multilateral exercises such as Croix du Sud and Equateur in the South Pacific. In March 2019, an aircraft carrier group including the aircraft carrier “Charles de Gaulle” left France, and conducted the multilateral naval exercise “La Pérouse” with Japanese, Australian, and U.S. ships including MSDF Destroyer JS “Izumo” in May 2019, when the group was deployed in the Indian Ocean. Furthermore, France dispatched Falcon 200 reconnaissance aircraft to conduct surveillance activities against illicit maritime activities, including ship-to-ship transfers with North Korean vessels. In 2019, the frigate “Vendémiaire” conducted surveillance activities in sea areas surrounding Japan including the East China Sea, and the frigate “Prairial” conducted the same duty from mid-February to early-March 2021. From the viewpoint of enhancing the effectiveness of the UN Security Council resolutions, Japan and France engaged in cooperation activities, including information sharing. As part of the long-term distant voyage mission conducted from 2020 to 2021, the French nuclear attack submarine “Émeraude” patrolled the South China Sea. After the completion of the activities, French Minister for the Armed Forces Florence Parly noted that France conducted the patrol mission, “To enrich our knowledge of this area and to affirm that international law is the only rule that is valid, whatever the sea in which we sail.” In May 2021, French navy sent the training fleet “Jeanne D’Arc” to Indo-Pacific region, and the frigate “Surcouf” and amphibious assault ship “Tonnerre” made port call in Japan, in order to conduct multilateral exercise “ARC 21.” This exercise includes amphibious operation trainings, bearing islands defense in mind, conducted by Japan, France, the United States, and Australia. In January 2021, France released the Strategic Update 2021, a supplementary version of the 2017 Defense and National Security Strategic Review. France, in this update, expresses its vigilance against Russia’s strategic intimidation and China’s maritime expansion to the South China Sea, and its intention to engage more in the Indo-Pacific, stating that it will contribute to the region particularly in cooperation with Japan, Australia and India.

3 Germany

While Germany has been implementing a large-scale reduction of its military personnel since the end of the Cold War, it has been gradually expanding the dispatch

of its federal forces overseas. At the same time, Germany has advanced the reform of its armed forces to enable them to execute multiple responsibilities encompassing conflict prevention and risk management in the context of multilateral organizations, including NATO, the EU, and the UN. However, following a worsening in the security environment, in May 2016 Germany changed policy and announced that it would increase military personnel by around 7,000 by 2023.

The country’s defense white paper released in July 2016 for the first time in about 10 years explains that Germany’s security environment has grown more complex and unstable, causing gradually rising uncertainty, citing specific threats such as international terrorism, cyber attacks, interstate conflict, and the influx of refugees and immigrants. The white paper also states that Germany would continue to emphasize multilateral cooperation and cross-government approaches, while striving to realize rules-based international order.

German government greatly changed its defense policy in response to Russia’s aggression against Ukraine in February 2022. This includes the suspension of approval for “Nord Stream 2,” weapon provision to Ukraine, and devoting its efforts to improvement of defense capabilities. Furthermore, Chancellor Scholz announced that the government will hike the defense budget from around 1.5% of GDP to 2% of GDP and keep it that way every year. Based on these facts, attention will focus further on Germany’s roles in the future security and defense of Europe.

In September 2020, the cabinet decision was made on the “Policy Guidelines for the Indo-Pacific Region,” which stipulated diplomatic guidelines for the Indo-Pacific. In the guidelines, Germany states the intention to strengthen its security policy engagement in the Indo-Pacific region and clarifies its stance of emphasizing the cooperation with partners with shared values including Japan. As specific initiatives, monitoring UN sanctions against North Korea, taking part in exercises in the region, expanding the forms of maritime presence, expanding cybersecurity cooperation and other efforts are mentioned. Germany deployed frigate “Bayern” to Indo-Pacific region in August 2021. After “Bayern” conducted bilateral training with the MSDF and made port call in Japan for the first time in two decades in November 2021, she has undertaken maritime surveillance duty against illegal activities such as illicit ship-to-ship transfers by North Korean vessels, the first

time for a German navy ship. Attention will be gathered on German engagement to the area, because Germany is considered to be a continuous assets provider for this region in the future.

4 Canada

Canada promoted a reduction in defense spending and the number of military personnel after the end of the Cold war, while the number of personnel in operational forces required for dealing with security issues such as civil conflicts abroad and international terrorism was on the rise. In response to these situations, Canada increased the defense spending for a certain period and the number of military personnel from 2000.

In June 2017, the Department of National Defence of Canada released the National Defence Policy. In this policy, Canada mentions that the United States is “still unquestionably the only superpower,” while also stating the view that a degree of major power competition has returned among China with “increasing ability to project influence globally,” and Russia with “its willingness to test” the current security environment, which is causing the growing importance for re-emergence of deterrence. In accordance with this understanding of the security environment, Canada places importance on its own national land and the North American region on the basis of the national defense policy. Based on the idea that global security has a direct connection with Canadian defense, Canada positions active international contribution as a basis of the national defense policy. In terms of the building-up of defense capability, the Canadian defense policy focuses on the fields of space and cyberspace and intelligence. It also states plans to increase the national defense budget, which once declined in the 2010s, by more than 70% in 10 years, and the Regular Force by 3,500 (to 71,500) military personnel. Furthermore, Canada released the Arctic and Northern Policy Framework in September 2019, setting up an objective to enhance Canada’s military presence, based on the recognition that strategic, military, and economic importance of the region is increasing.

Canada regards the United States as its most important ally and conducts air defense, space defense, and maritime patrolling and monitoring activities in North

America jointly with the United States through the North American Aerospace Defense Command (NORAD). As a founding member, Canada also places an importance on its relationship with NATO, and has been actively participating in NATO-led operations in Central and Eastern Europe and Afghanistan. Canada has been supporting Ukraine Armed Forces through providing non-lethal weapons and training support since 2015, and turned to more proactive support through providing lethal weapons such as machine guns in response to the start of Russia’s aggression against Ukraine in February 2022. In addition, as a member of the Five Eyes (FVEY), an intelligence-sharing alliance, Canada receives a great deal of benefits and intends to continue deepening the relation with it. Canada traditionally supports the activities of the United Nations, and the Trudeau administration has expressed its stance that contributing to the UN Peacekeeping Operations (PKO) is of utmost importance.

With regard to the Asia-Pacific region, Canada, in the above mentioned National Defence Policy, positions itself as a Pacific nation and shows the intention to engage in the region through strategic dialogues to exchange views on regional security issues, such as territorial disputes and the situation in the Korean Peninsula. Since April 2018, as part of these engagements, Canada has conducted surveillance activities against illegal maritime activities including ship-to-ship transfers with North Korean ships.⁵ In addition, the whole Canadian government is reviewing its approach towards China. As the Canadian government has demonstrated its recognition of threat that China is attempting to achieve geopolitical objectives through a set of political, economical, and military means, attention will be focused on how the Indo-Pacific strategy currently being developed will affect Canadian security policy for Indo-Pacific region. With regard to the national defense, Canada is reviewing its military relationship with China’s People’s Liberation Army (PLA), and bilateral training between Canada Armed Forces and PLA has not been conducted since February 2018. On the other hand, considering that Canadian warships have passed through Taiwan Strait⁶ several times in accordance with international laws since 2018, attention will be paid to future Canadian engagement to the region.

⁵ Canada has been engaged in this surveillance activities since June 2019 under the framework of “Operation NEON” which is the implementation activity of the sanctions imposed against North Korea.

⁶ Canada has been engaged in this activity as part of the “Operation PROJECTION” which is a maritime operation for global security for the purpose of showing Canadian commitment to world peace.

Section 10 Middle East, North Africa, and Other Regions

1 General Situation

The Middle East and Africa has long been one of the world's centers of civilization, religion, and trade, as well as a geopolitical bastion connecting Asia and Europe. Today, the Middle East is a major source of energy supply for the world and contains major routes for international commerce. Japan is also dependent on the region for approximately 90% of its crude oil imports. Peace and stability in the Middle East region is extremely important for the peace and prosperity of the international community, including Japan.

On the other hand, the Middle East and Africa region has been experiencing constant conflicts and unrest throughout the 20th century. In recent years, tensions

have risen due to the situation in the Gulf region and the Middle East peace process. In addition, the Arab Spring that occurred at the beginning of 2011 prompted regime change in some countries, but due to the turmoil that followed, almost a decade later, civil wars and the activities of terrorist organizations are ongoing in some of those countries.

Furthermore, international terrorist organizations such as “Al Qaeda” and “Islamic State of Iraq and the Levant (ISIL)” are still active all over the world including in the Middle East and African region, and individuals or groups sympathetic to them also carry out terrorist attacks.

2 Situation in the Gulf Region

1 Military Trends in the Gulf Region

While the situations surrounding the final agreement concerning the nuclear issues of Iran, the Joint Comprehensive Plan of Action (JCPOA)¹ were changing, various events including military moves have occurred in the Gulf region. Since May 2019, the United States has announced the dispatch of carrier strike groups and bomber units in response to Iran's threats to its own troops and interests. For example, in July, it stationed troops in Saudi Arabia for the first time in nearly 16 years since 2003. In September and October, it announced the deployment of additional troops, including air defense missile forces.

In the middle of this situation, in June 2019, Iran announced its shooting down of a U.S. unmanned reconnaissance aircraft over the Straits of Hormuz, and was blamed for its engagement in attacks to oil facilities in Eastern Saudi Arabia in September 2019. Since April 2020, vessels of Iran's Islamic Revolutionary Guards

Corps (IRGC) have made abnormally close approaches to U.S. Forces' vessels several times in the Persian Gulf, and they launched a military satellite for the first time. On the other hand, the United States announced that a U.S. amphibious assault ship had shot down an Iranian drone over the Strait of Hormuz in July 2019. In addition, incidents caused damage to buildings and parties related to nuclear development within Iran.

Since October 2019, there have been multiple attacks on U.S. military bases in Iraq. The United States bombed the stronghold of an armed organization supported by Iran, blaming that the country was engaged in one of the attacks that killed an American citizen in December 2019. In addition, in January 2020, the United States killed Soleimani, commander of the Quds Force of IRGC, who was operating inside Iraq with the organization's leaders, as a deterrent to further attack plans. Although Iran attacked Iraqi bases hosting U.S. Forces in Iraq with a ballistic missile in retaliation for the killing, after that, both countries made it clear that

¹ It was decided that Iran would reduce its enriched uranium stockpile and the number of centrifuges, ban the production of weapons grade plutonium, and accept IAEA inspections, among other measures, in exchange for ending the sanctions of previous UN Security Council resolutions and the U.S. and EU's nuclear-related sanctions. In May 2018, then U.S. President Trump announced the U.S. withdrawal from JCPOA, and in November 2018, the United States resumed all its sanctions and successively added further sanctions. In this situation, Iran announced that while it would not withdraw from JCPOA after May 2019, it would suspend its compliance with JCPOA step by step. With the new U.S. President Biden inaugurated in January 2021, indirect negotiations on JCPOA between the United States and Iran started in April 2021. Although these negotiations were halted in June 2021, it resumed in November with Iranian new president Raisi, inaugurated in August 2021.

they wanted to avoid any further escalation.

Thereafter, a series of incidents targeted on U.S. interests was continued, including attacks to U.S. military bases by armed organizations using drones in 2021. Given this situation, during that year, the United States scaled down its stationed troops to 2,500 members until January, and completed their combat mission in December.

While the United States completed the withdrawal of forces from Afghanistan in August 2021, its military presence in the Gulf region has been decreasing. In the Interim National Security Strategic Guidance released in March 2021, the Biden Administration expressed that it would right-size the U.S. military presence to the level required to disrupt international terrorist networks, deter Iranian aggression, and generally protect vital interests of the United States. After April 2021, it was reported that part of the fighter aircraft and air defense assets deployed in the Gulf region by Trump Administration were withdrawn. Furthermore, there has been no U.S. aircraft carriers in the Middle East since the aircraft carrier USS Ronald Reagan left the area in September 2021.

2 Maritime Security in the Gulf Region

Since May 2019, events affecting the navigation safety of civilian vessels have occurred sporadically in the waters of the Middle East. With regard to Japan-related vessels, in June 2019, two vessels, including the chemical tanker *Kokuka Courageous* operated by a Japanese shipping company, were attacked in the Gulf of Oman. While the United States and others have pointed out that the attack was committed by Iran, Iran has denied any involvement. Based on a comprehensive review of the information from related countries, technical analysis of the damage to the vessel, and testimony from the parties concerned, Japan believes that the damage to the vessel is highly likely to have been caused by limpet mines.²

From February to April 2021, other explosion and attack incidents involving Iran- and Israel-related vessels occurred one after another. Furthermore, in July 2021, a vessel owned by a Japanese company, operated and managed by a British company chaired by an Israeli businessman was attacked off the coast of Oman. U.S. Central Command reported after an investigation that an Iranian unmanned aerial vehicle was used in this



Damage to a vessel reportedly attacked by an Iran-made UAV in July 2021
[U.S. Central Command]

attack. In addition, the foreign ministers of G7 issued a statement saying that “all available evidence clearly points to Iran” about this attack.

Amidst rising tensions in the Middle East, countries continue carrying out efforts to safeguard maritime security in the region. The United States proposed the Maritime Security Initiative in July 2019 and established the International Maritime Security Construct (IMSC) with its command center opened in Bahrain in November. In addition to the United States, IMSC has been joined by eight countries, including the United Kingdom, Saudi Arabia, the UAE, Bahrain, Albania, Lithuania, Estonia and Romania (as of March 2022).

In Europe, eight countries (France, the Netherlands, Denmark, Greece, Belgium, Germany, Italy and Portugal) issued a statement in January 2020 to politically support the creation of the European Maritime Awareness in the Strait of Hormuz (EMASOH) mission. In November 2021, Norway joined these countries. France, the Netherlands, Denmark, Belgium, Greece and Italy have dispatched their assets so far.

On the other hand, although Iran presented a plan named “HOrmuz Peace Endeavor” (HOPE) as an independent effort to maintain security in the Persian Gulf and the Strait of Hormuz, and called on the countries concerned to join in September 2019, the concept has not been made concrete.

Japan needs to continue to pay close attention to the future developments surrounding the situation in the Gulf region.

² A type of underwater weapon. Generally, they are placed on the hull of a ship and denoted for the purpose of making it impossible for the ship to navigate.

3 The Situation Surrounding Middle East Peace

Although Palestine started autonomy based on the Oslo Accords signed between Israel and Palestine in 1993 for Middle East peace, the peace process is in a stalemate. In Palestine, the moderate Fatah, which governs the West Bank, and the Islamic fundamentalist Hamas, which effectively controls the Gaza Strip, are in conflict, splitting the area.

In such circumstances, after then U.S. Trump administration announced its recognition of Jerusalem as the capital of Israel in 2017 and moved the U.S. embassy from Tel Aviv to Jerusalem in 2018, the tensions have risen, particularly in the Gaza Strip. In 2020, the administration announced a new Middle East peace plan, but the Palestinian side refused to negotiate, opposing the plan's descriptions concerning the Israeli-Palestinian border and the possession of Jerusalem.

On the other hand, the Trump Administration actively encouraged Israel and Arab countries to achieve peace agreements. In and after August 2020, the United Arab Emirates (UAE), Bahrain, Sudan, and Morocco successively reached agreements for the normalization of diplomatic relations with Israel. The establishment of diplomatic relations between Arab countries and Israel was the first such event since that with Egypt (1979) and Jordan (1994).

In 2021, Israel, UAE, and Bahrain established their embassies mutually in respective capitals. In November 2021, these three countries, together with the United States, conducted their first multilateral exercise in the Red Sea, focusing on enhancing the interoperability of their maritime interdiction teams. Furthermore, Israel signed a memorandum of understanding for military cooperation with Morocco in November 2021. This way,

security cooperation is widening between Israel and the Arab countries that normalized diplomatic relationship with Israel.

On the other hand, in Palestine, Fatah and Hamas are continuously confronting one another. Although Legislative Council and presidential elections were on schedule in May and July 2021 respectively for the first time in more than fifteen years, a postponement for both elections was announced at the end of April that year.

In May 2021, between Israel and Palestinian armed forces, intermittent series of rockets and other projectiles were fired into Israel from the Gaza Strip, leading to an exchange of fire with the Israel Defense Forces, which fired back. Although a ceasefire was announced within the same month, tension between both sides continues.

Amid the changing situations surrounding the Middle-East peace process, a close eye will be kept on future developments regarding the Middle East peace process, including the United States' engagement.



Rockets flying from the Gaza Strip to Israel in May 2021 [EPA/Jiji]

4 Situation in Syria

Violent clashes in Syria since March 2011 pit four parties, the Syrian Government forces, opposition forces, Islamic extremist forces, and Kurdish groups, against each other. However, the government forces have gained the upper hand overall with support from Russia, recapturing Aleppo, which was once the largest stronghold of rebel forces, the suburbs of the Syrian capital of Damascus and areas close to the Syria-Jordan border.

In Idlib, a rebel stronghold even today, Russia, which had been supporting Syrian Government forces, and Turkey, which had been backing the rebels, agreed in September 2018 to establish a DMZ in Idlib and withdraw heavy artillery and militant groups from the zone. After the agreement, however, Syrian Government forces and Russia Armed Forces strengthened air and ground operations, and hostilities between Turkish forces and Syrian Government forces expanded. Although Turkey

and Russia agreed to a ceasefire in March 2020, battles have occurred intermittently and a complete ceasefire has not been realized.

Meanwhile, the peace talks have so far made little progress. Peace talks led by Russia, Turkey, and Iran have continued in Astana (current Nur-Sultan), Kazakhstan, since January 2017. Furthermore, the sixth meeting of the constitutional committee, which will work on the new constitution of Syria based on the agreement concluded in January 2018 in Sochi, Russia, was held in October 2021, but to date there has been no substantive progress in political process.

In addition, conflicts among the countries and forces involved over the Kurds inside Syria have continued. The Turkish forces continues deployment to Syria; after the withdrawal of the U.S. Forces from Northern Syria along the Turkish border in October 2019, it started

military operations against Kurdish groups, which the country perceives as terrorist organizations, as well as ISIL, and took control over part of the northeastern region of Syria. On the other hand, the United States still stations some of its military units in northeastern Syria, and continues to support Kurdish groups which have been at the core of operations against ISIL.

Amid the still unstable situation in Syria, the United States continues to have some of its troops stationed in the country to mop up ISIL. What seems to be attacks from Pro-Iran groups happen sporadically against U.S. military bases in Syria.

Relations between various forces over the Syrian situation have been complicated, with peace talks being stalled. Further initiatives from the international community towards the stabilization of Syria are required.

5 Situation in Yemen

In Yemen, following anti-government protests that occurred from February 2011 and international pressure afterward, then President Ali Abdullah Saleh agreed to resign. Through the election held in February 2012, then Vice President Abd-Rabbu Mansour Hadi was elected as the new President.

Meanwhile, the confrontation intensified between the government and the opposition insurgent group Houthis, based in northern Yemen. As the Houthis invaded the Yemeni capital of Sana'a and other locations, the President requested support from Arab countries. In response, in March 2015, coalition forces led by Saudi Arabia began air strikes against the Houthis. In response, the Houthis also launched attacks on the mainland of Saudi Arabia with ballistic missiles and other weapons.

A ceasefire in Hodeidah city, host to the biggest port in Yemen, was agreed upon between the Houthis and the Yemen government during the peace negotiations held in Sweden in December 2018. However, the negotiations on specific measures toward the ceasefire did not go smoothly, and terms of the agreement including ceasefire in Hodeidah have not been implemented. The Houthis also continue to fight with the Yemeni Government's military in other regions than Hodeidah, and battles are intensifying particularly in areas such as Marib which is

especially rich in natural resources.

On the other hand, the Houthis, which reportedly receive weapons from Iran³, attack Saudi Arabia using unmanned aircraft and missiles intermittently, and Saudi-led coalition intercept the attacks and continue airstrikes towards the Houthis. In January 2022, the Houthis announced that they conducted attacks against UAE. In response, UAE conducted airstrikes to missile launching sites in Yemen.

While the situation surrounding the Houthis was changing, in November 2019, the Yemeni Government and the Southern Transitional Council (STC), a separatist group in southern Yemen, signed the Riyadh Agreement in the capital of Saudi Arabia, Riyadh. Although the new cabinet with the participation of both camps was established in December 2020 based on this agreement, implementation of the agreement details, including the movement of military units, has been delayed.

The Biden Administration of the United States, established in January 2021, has set out a policy of completely ending its support for offensive operations in the country and made active mediation efforts. However, with the Houthis intensifying their offensive, there is no prospect of a ceasefire or eventual peace agreement across Yemen.

³ According to Iran Military Power, a report released by the U.S. Defense Intelligence Agency (DIA) in November 2019.

6 Situation in Libya

After Qaddafi regime collapsed in 2011, the General National Congress, mainly comprised of Islamists, was established in 2012. In 2014, the confrontation between Islamic and secular groups over the transfer of power to the House of Representatives intensified, since secularists became the majority in the elections for a House of Representatives held to establish a new congress. Consequently, Libya became fragmented between east and west, with two assemblies existing in parallel—the Islamic groups' General National Congress based in the capital city of Tripoli and the secular groups' House of Representatives based in Tobruk in eastern Libya. This fragmented situation has continued despite that the Government of National Accord (GNA) was established based on the Libyan Political Agreement mediated by the United Nations in 2015.

In April 2019, Commander Haftar's Libya National Army (LNA), the largest forces in eastern Libya, advanced into a suburb of the capital city of Tripoli and clashed with militias subordinate to the GNA in western Libya. While the eastern and the western groups received military support from related countries including

Unmanned Aerial Vehicles (UAVs) respectively, the GNA side attained superiority using support such as UAVs from Turkey. Mercenaries from a Russian private military company were also dispatched to Libya to support the LNA, while Turkey dispatched Turkish forces, and the Syrian fighters it has been supporting, to Libya at the request of the GNA. In October 2020, a permanent cease-fire agreement was signed between delegates from the GNA and the LNA, and in October 2021, the United Nations' ceasefire monitors started their work. The efforts to pull out foreign troops and mercenaries still continue.⁴

On the political front, political dialogue led by the United Nations started between the forces after the ceasefire agreement, and in March 2021, the temporary Government of National Unity was approved. However, since the general elections scheduled in December 2021 were postponed, the prospect to establish a legitimate government has become uncertain. Attention will be focused on the effort to establish domestic administration and public security.

7 Situation in Afghanistan

In Afghanistan, the Taliban intensified their offensive as the NATO-led Resolute Support Mission (RSM) launched education, training and advice for the Afghan National Defense and Security Forces (ANDSF) in the wake of the International Security Assistance Force (ISAF)'s withdrawal in December 2014. Meanwhile, the ANDSF faces challenges regarding logistics, morale, air capabilities, and troop-commander leadership, allowing the Taliban to expand their control in Afghanistan.

In February 2020, an agreement was signed between the United States and the Taliban that included the conditional phase-out of U.S. forces in Afghanistan. In March 2020, the United States announced that it had begun the withdrawal of its forces. Moreover, peace negotiations began between the Afghan Government and the Taliban, in Qatar, in September 2020. The United States reduced the size of the U.S. Forces in Afghanistan to 2,500 personnel by January 2021, and

made it public in July that the withdrawal would be completed by the end of August.

In this situation, the Taliban expanded their ruled area quickly and in August 2021, they brought the capital city Kabul under their control. In the caretaker cabinet announced to be established in September 2021 by the Taliban, while Mullah Baradar who led the negotiations with the United States took the office of First Deputy Prime Minister, several members of the Haqqani Network, subjected to UN sanctions and a hard core group within the Taliban, were appointed cabinet members. It is pointed out that this indicates that the network has a strong influence.

In December 2021, the UN Security Council adopted a U.S.-proposed resolution that humanitarian assistance does not constitute a violation of UN sanctions. However, the Taliban cabinet attained no approval as a government from other nations as of March 2022.

⁴ According to a report of the United Nations Secretary-General on United Nations Support Mission in Libya (January 17, 2022).

Attention will be focused on the Taliban's internal governance and international negotiations with other

countries.

8 Situation in South Sudan

The second North-South civil war in Sudan, which had continued since 1983, came to an end in 2005 with the entry into force of a peace agreement concluded between the Sudan People's Liberation Movement Army (SPLM/A), the predecessor of the current administration in southern Sudan, which later became the government army, and the al-Bashir administration. In July 2011, the Republic of South Sudan was separated and gained independence from the Republic of the Sudan following the referendum based on the agreement.

However, the conflicts within the SPLA, which had existed since the independence, continued. By the time when the current transitional government was established in 2020, two large-scale armed confrontations occurred due to political conflicts between President Salve Kiir and First Vice President Riek Machar.

The Agreement on the Resolution of the Conflict in South Sudan (ARCSS) was signed after the first

confrontation to reach a peaceful agreement, and the Revitalized Agreement on the Resolution of the Conflict in South Sudan (R-ARCSS) was signed after the second confrontation to revitalize the ARCSS.

While the establishment of the interim government was first scheduled for May 2019, it got postponed two times, and was finally conducted in February 2020. There is also a tendency to delay the fulfillment of other agreements, such as the formation of united armed forces. Attention will be focused on the movement for the establishment of the official government because it is unpredictable whether the agreements of R-ARCSS will be fulfilled according to the initial timeline, considering the conflicts arising from a splitting within the First Vice President Machar's faction from August 2021.

 **See** Fig. I-3-10-1 (Current UN Peacekeeping Operations)
Part III, Chapter 3, Section 5-2-2 (UNMISS)

9 Situation in Ethiopia

After the incumbent Prime Minister Abiy, who leans towards inter-ethnic harmony, took office in 2018, the former ruling party Tigray People's Liberation Front (TPLF), that mainly consists of Tigrayans and tends towards ethnocentrism, has been in opposition to him.

After his inauguration, Prime Minister Abiy settled a border dispute with Eritrea and ended the 20 year long war by agreeing to return a part of Tigray region to Eritrea, but the TPLF reacted strongly against the solution because the ceded region is part of their home territory. The confrontation between them was deepened as Tigray region carried out the regional assembly election arbitrarily, being opposed to the extension of the session of the Diet and of the Prime Minister's term of office because of the need to device measures against COVID-19 in June 2020.

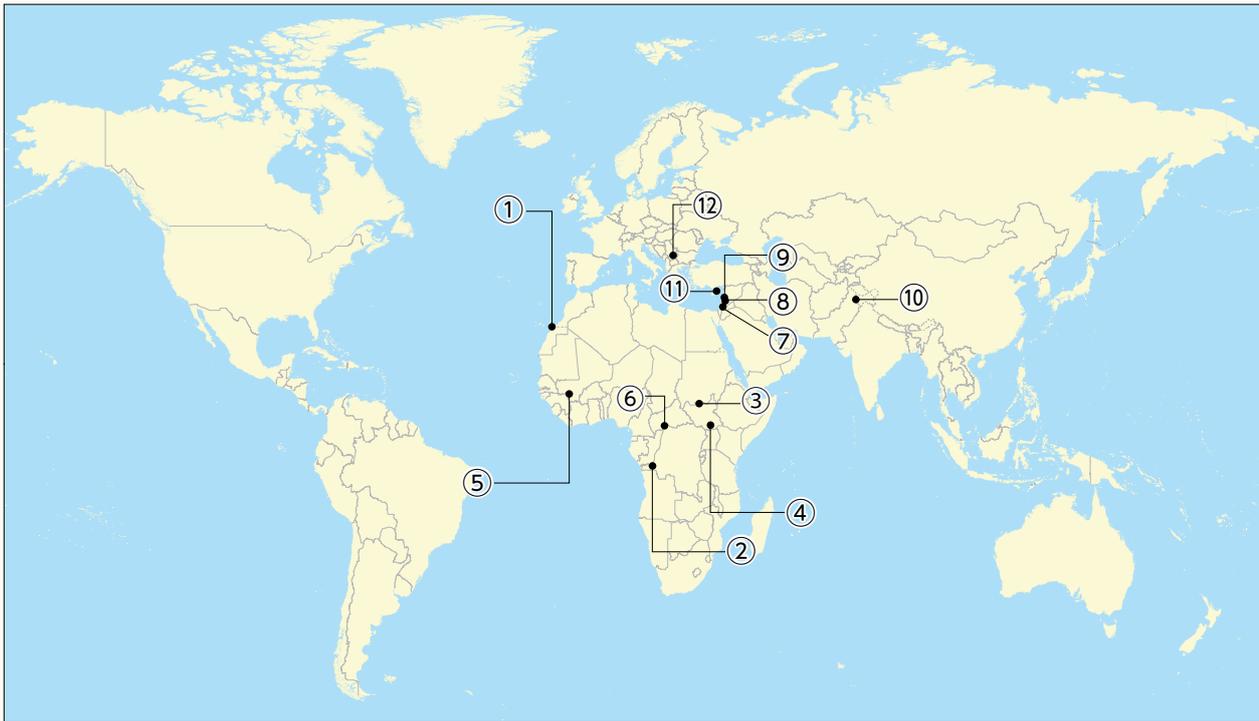
In November of the same year, the Prime Minister conducted a military action against the TPLF, making an assertion that the TPLF had attacked a base of the Ethiopian National Defense Force (ENDF). Within

the same month, the ENDF troops took the control of Mekele, the capital of Tigray Region. On the other hand, the TPLF confronted the ENDF through guerilla warfare inside and outside of the region. Thereafter they strengthened their offensive and regained the control of Mekele in June 2021, and after July of that year, they invaded adjacent regions. At the end of October that same year, the TPLF gained control of strategic positions along the highway linking Addis Ababa, the Ethiopian capital, and Mekele. In response to this situation, the federal government declared a state of emergency in the whole country at the beginning of November of the same year.

For a certain time, the TPLF advanced to a location about 200 km away from the capital, but after the ENDF switched to the offensive in late November, the TPLF retreated to Tigray Region the next month in December 2021.

Both parties came to an agreement for the mutual humanitarian ceasefire in March 2022 as a result of

Fig. I-3-10-1 Current UN Peacekeeping Operations



Note: According to the United Nations (as of the end of March 2022)

Africa

	Mission	Date Established
①	United Nations Mission for the Referendum in Western Sahara (MINURSO)	Apr. 1991
②	United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO)	Jul. 2010
③	United Nations Interim Security Force for Abyei (UNISFA)	Jun. 2011
④	United Nations Mission in the Republic of South Sudan (UNMISS)	Jul. 2011
⑤	United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA)	Apr. 2013
⑥	United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA)	Apr. 2014

Middle East

	Mission	Date Established
⑦	United Nations Truce Supervision Organization (UNTSO)	May 1948
⑧	United Nations Disengagement Observer Force (UNDOF)	May. 1974
⑨	United Nations Interim Force in Lebanon (UNIFIL)	Mar. 1978

Asia

	Mission	Date Established
⑩	United Nations Military Observer Group in India and Pakistan (UNMOGIP)	Jan. 1949

Europe/CIS

	Mission	Date Established
⑪	United Nations Peacekeeping Force in Cyprus (UNFICYP)	Mar. 1964
⑫	United Nations Interim Administration Mission in Kosovo (UNMIK)	Jun. 1999

the mediation efforts made by the African Union and others, who were worried about the worsening of the

humanitarian situation within North Ethiopian battle fields under prolonged conflict.

10 Trends in International Terrorism

1 General Situation

There are prominent cases where power vacuums in some countries with weak governance in the Middle East and Africa have become a hotbed for activities of international terrorist organizations such as Al Qaeda and ISIL. This kind of terrorist organizations have instigated fighters to conduct terrorist attacks at their home and abroad, and are also spreading violent extremist ideologies via Internet or other means. As a result, “home-grown” terrorist attacks, committed by terrorists influenced and radicalized by violent extremism in their home country, and “lone-wolf” terrorist attacks, planned and committed by individuals or small groups that have no official relations with international terrorist organizations but have become influenced by them in some ways, have occurred in Western and other countries. Moreover, terrorist attacks targeting certain religions or races in a right-wing extremist political context have also occurred in Western countries.

Among international terrorist organizations, ISIL established multiple “provinces” outside of their original base in Iraq and Syria as “Islamic State” territories, and these “provinces” have been conducting terrorist attacks in various places.

As for Al Qaeda, based primarily in Afghanistan, it is believed to have been weakened, as many of the group’s senior members were killed through U.S. operations. However, it continues its activities as a central organization, such as through issuing instructions and recommendations to its affiliate organizations in Africa and the Middle East.

 **See** Fig. I-3-10-2 (Major Terrorist Groups Based in Africa and the Middle East)

Concerning international counterterrorism measures, international cooperation has grown even more important as terrorism threats have diffused and deepened on the diversification of terrorist attacks and the improvement of terrorist groups’ attack capabilities.

2 Trends of Activities in Africa

Africa, in which ISIL or Al Qaeda affiliated organizations are active, is reportedly the region most affected with terrorism.⁵ In some areas of West Africa such as Mali and other parts of the Sahel region, conflicts between terrorist organizations as well as vigorous terrorist activities are observed. In Southern Africa, armed groups such as the one later known as the ISIL Central Africa Province, based mainly in Mozambique, have assaulted and occupied some parts of the country since 2017, leading to the suspension of the development of a natural gas field led by a French company in March 2020.

European and other countries have been providing counter-terrorism operations and are providing trainings against such terrorist organizations’ activities. For example, France, having put troops in the Sahel region from 2013, announced the withdrawal of French Armed Forces and France-led multinational special forces from Mali and the relocation of the troops to the border area in adjacent Niger in February 2022. In Mozambique, in August 2021, units dispatched from neighboring countries contributed to the recapture of the area occupied by armed groups, and an EU training mission began operations in November 2021.

3 Trends of Activities in the Middle East

Since 2013, ISIL had become powerful by taking advantage of the unstable situation in Iraq and Syria, and unilaterally declared the establishment of the “Islamic State” in 2014. From that year, the U.S.-led Coalition forces conducted airstrikes in Iraq and Syria and engaged in providing local forces with education and training. In 2019, the United States announced that it and the Coalition forces had liberated 100 percent of ISIL-controlled areas in Syria and Iraq. In February 2022, U.S. Special Operation forces conducted a raid

⁵ According to a report of the United Nations Security Council ISIL (Da’esh) and Al Qaeda Sanctions Committee (July 21, 2021).

against ISIL’s leader at his stronghold in northwestern Syria, and he died during the operation. In March 2022 , ISIL announced the appointment of a new leader and is believed to still be active in Iraq and Syria.

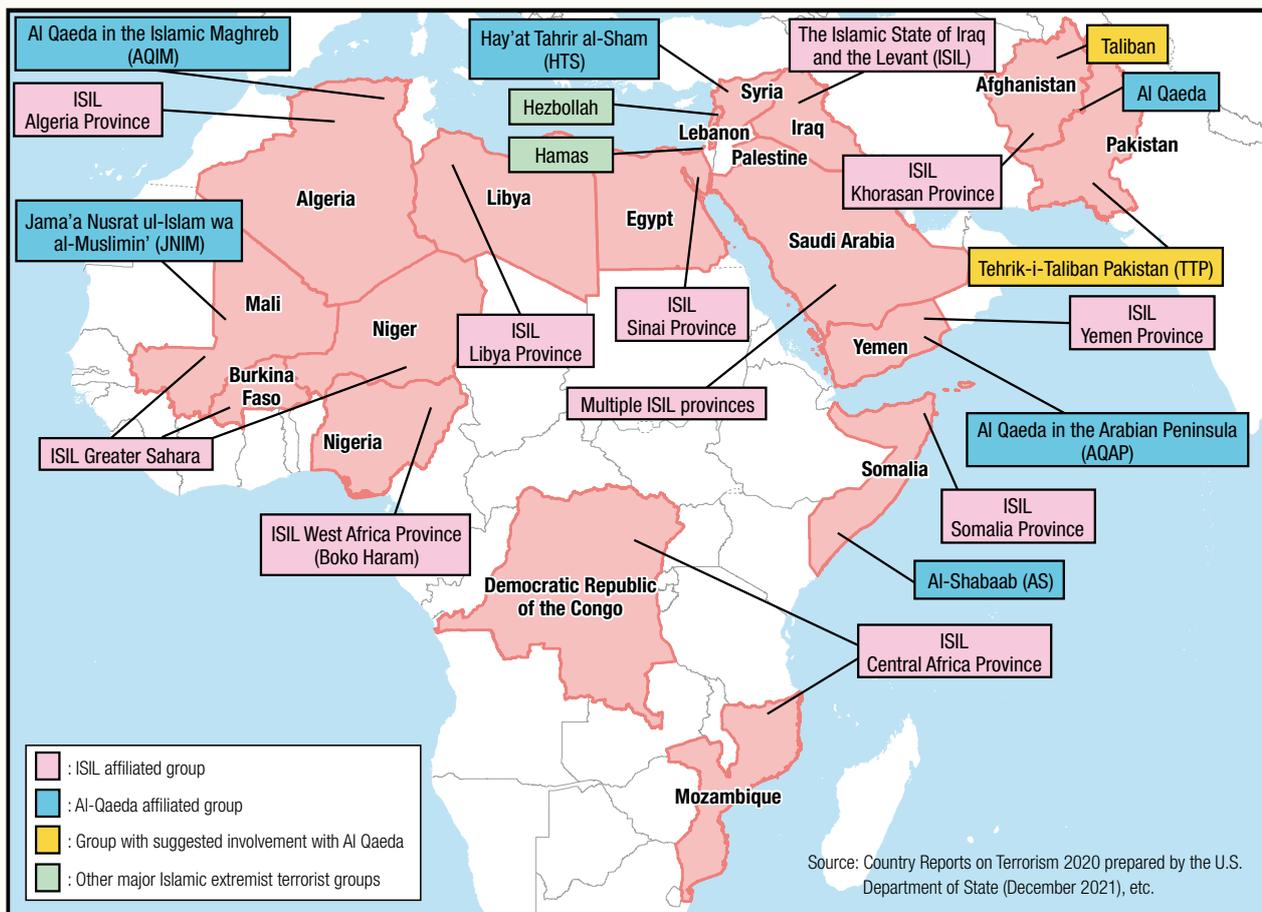
In Afghanistan, while the Taliban are expanding their controlled area, the ISIL Khorosan Province has been continuously conducting terrorist attacks mainly in the capital city of Kabul and eastern Afghanistan since 2015. When the Taliban, having a cooperative relation with Al Qaeda, took control of Kabul in August 2021, a suicide bombing was conducted in the vicinity of Kabul International Airport while different countries were in the process of evacuating their citizens and other people, and the ISIL Khorosan Province claimed responsibility for the attack. At the end of the same month, the United States announced to continue counterterrorism operations through over-the-horizon capabilities, despite the completion of the U.S. Forces’ withdrawal. On the other hand, Russia and China request the Taliban to control terrorist organizations, while conducting

military exercises focused on prevention of terrorist attacks.

Even after the withdrawal of U.S. Forces, the ISIL Khorosan Province is actively conducting terrorist attacks in Kabul and other areas. In September 2021, General Milley, the U.S. Chairman of the Joint Chiefs of Staff, said that reconstituted Al Qaeda or ISIL with aspirations to attack the United States could present themselves in the next one to three years in Afghanistan.

See Fig. I-3-10-2 (Major Terrorist Groups Based in Africa and the Middle East)

Fig. I-3-10-2 Major Terrorist Groups Based in Africa and the Middle East



1 Science, Technology and Security

The developments in science and technology have now changed society, people's lifestyles, and security. In recent years, rapid technological development has emerged from the civilian field and its significant effects to security sectors are especially notable. Countries are focusing their efforts on research, development and military applications of technologies that might be game changing technologies in that they could drastically change the conduct of future warfare, such as artificial intelligence (AI), quantum technology, and next generation information and communication technology.

Our attention needs to be focused on these applications that will greatly improve the accuracy and speed of decision making, as information processing, which has so far been limited by the capabilities of human beings and conventional computers, could become faster and automatic. In addition, focus on high-speed, large-capacity, and secure communication based on these new technologies will greatly contribute to automation and manpower savings, which will be a major need in future defense.

Moreover, these new technologies blur the boundary between military and non-military matters, expanding the so-called gray zone situation. There are many examples in which diverse means that are not limited to purely military ones have been used to create chaos in other countries, such as cyber attacks targeting

communications or critical infrastructure, or the attacks using drones equipped with AI. The use of "Deepfake" technology, in which AI technology is used to make fake videos, is widely expanding. Its use during peaceful stages is also expanding, with increasingly ingenious ways to perform information warfare, such as influencing elections through the spread of disinformation. Such influence on the security field is a growing concern.

In addition, the interstate competition for the technology, based on the perception that it is profitable to lead international standards with superiority in the cutting-edge technologies that are to become important for national economy and security, becomes apparent, notably in the fields of fifth generation mobile communication system (5G) and semiconductors. Moreover, the importance of securing supply chains for critical resources such as semiconductors and rare metals from a security standpoint is widely accepted.

In this situation, technology theft using cyberspace, corporate activities including corporate acquisitions and investments, academic exchanges, and covert operatives have also become challenges to address. For this, each nation takes measures from the viewpoint of "economic security", such as strict export control, reinforcement of screening for investments from abroad, and higher independence for technological development and production.

2 Trends of Military Cutting-edge Technology

(1) Hypersonic Weapons

The United States, China, and Russia are developing hypersonic weapons, including Hypersonic Glide Vehicles (HGVs) that would be launched from ballistic missiles, maneuvered to glide at hypersonic speed (Mach 5 or above) after their entry into the atmosphere, and hit targets, as well as Hypersonic Cruise Missiles

(HCMs) using scramjet engines and other technologies that enable hypersonic flights. It is suggested that hypersonic weapons would fly in lower orbits than conventional ballistic missiles at hypersonic speed above Mach 5 for a longer period of time and that their high maneuverability would make them difficult to be detected and intercepted.

A high official of the U.S. Department of Defense (DoD) mentioned a development plan of hypersonic weapons in March 2021, revealing that the United States will deploy the hypersonic weapons during the first half of the decade starting in 2020, and build defense capability in the second half.¹ A prototype of the launcher for Long Range Hypersonic Weapon (LRHW) was delivered to the U.S. Army in October 2021.

In China, the DF-17 ballistic missile, viewed as capable of carrying an HGV, made its first public appearance during the military parade marking the 70th anniversary of China's founding in October 2019. The U.S. DoD pointed out that China started commissioning the DF-17 in 2020. It has also been reported that China conducted the launching experiment of a hypersonic weapon to low earth orbit (LEO) around the summer of 2021. About this experiment, General Milley, the Chairman of the Joint Chiefs of Staff, revealed a sense of danger about China's rapid capacity improvement.

Russia deployed the HGV "Avangard" in 2019. During the expanded executive meeting of Defence Ministry held in December 2021, Minister of Defence Shoigu said that the deployment of the new ICBM "Sarmat", capable of carrying the Avangard HGV for combat duty was the priority issue of 2022. Furthermore, Russia's Defence Ministry successfully completed the launching test of HCM "Zircon" from a submarine in October 2021. President Putin stated in November of the same year that the test was in its final stage and that the deployment to Navy will start from 2022.

(2) High-power Energy Technology

High-power energy weapons, such as electromagnetic railguns, high-power laser weapons, and high-power microwaves, are being developed as a means to counter various airborne threats.

Electromagnetic railguns are weapons that use magnetic fields generated from electric energy to launch projectiles. Unlike missiles, projectiles for electromagnetic railguns have no propulsion systems and are smaller, less costly, and can be stored in smaller space, which supposedly makes it possible for electromagnetic railguns to efficiently counter massive missile attacks, if they become available for intercepting missiles.

The United States, China, Russia and others are



Launch test of the HCM Zircon from a nuclear submarine [Russian Ministry of Defence]

developing high-power laser weapons to destroy targets with laser energy. Laser weapons are expected as an effective and less costly means against multiple small unmanned vehicles and boats. Though it depends on the technological maturity, high-power laser weapons would excel in the speed of response compared with conventional weapons, and they can be free from ammunition constraints. Therefore, laser weapons, if strengthened enough to intercept missiles, are expected to be a potentially new missile defense system.

In May 2020, the United States Navy successfully disabled a small unmanned aerial system in flight with an onboard laser demonstrating unit during a test in the Pacific Ocean. In December 2021, they also successfully completed the intercept test of a flying target with a high power laser demonstrating unit equipped on the amphibious transport dock "USS Portland", while sailing in the Gulf of Aden.

China exhibited the 30-100 kW "Silent Hunter" laser weapon system, capable of countering small unmanned aircraft, at the IDEX 2017 international defense exhibition. It is pointed that China is deploying anti-satellite laser weapons that appear to be designed to jam or damage the optical sensors of low-earth orbit satellites. It has also been pointed out that even more powerful laser weapons are being developed as anti-satellite weapons.

Russia has deployed the 10 kW "Peresvet" laser weapon system and it is reportedly developing a megawatt-class chemical laser weapon system for attacking satellites.

Furthermore, in June 2021, the Israeli Ministry of Defense and an Israeli company announced that they successfully completed a series of tests to intercept more than one unmanned aircraft by an airborne laser

¹ According to the website of the U.S. Department of Defense on February 27, 2021.

weapon in flight. Israel also successfully completed a test to intercept more than one unmanned aircraft by a land vehicle mounted with anti-UAV laser weapon in February 2020.

High-power microwave technology can cause destruction and malfunction in the electronic systems responsible for such functions as intelligence-gathering and command & communications aboard unmanned aircraft, missiles and other airborne threats. The United States Air Force has made a prototype of “Phaser” high-power microwave system in 2019. During U.S. Army exercises, the system reportedly countered two to three small unmanned aircraft in one time and 33 in total. In July 2021, the U.S. Air Force Research Laboratory revealed that it would develop new high-power microwave weapon system “Mjolnir” based



High-power microwave weapon system “THOR”
[U.S. Air Force]

on outcomes from the experiment to counter swarm attacks by small unmanned aircraft using technology demonstration system “THOR”.

3 Trends of Cutting-edge Technologies in the Civilian Field

(1) Artificial Intelligence (AI) Technology

AI technology is one of the technological areas that shows rapid progress in recent years. It has been pointed out that the rapid AI progress has been exerting a great impact on the military field, including the application for unmanned vehicles and the operation in cyberspace as well as supporting for command, decision-making, improving data processing capacity, and so on.

U.S. Secretary of Defense Austin stated that the United States will invest about US\$1.5 billion to the AI project of the Defense Advanced Research Projects Agency (DARPA) in the next five years and positioned investment for AI as the top priority.

As an example of technology using AI, in December 2019, the United States conducted demonstration tests on the Advanced Battle Management System (ABMS), which analyzes collected data with AI and promptly shares the analysis with combat troops using networks. Meanwhile, China has announced that the AI Military Simulation Competition was held by the Central Military Commission in July 2020 with the purpose of researching and developing next-generation command information systems.

Different nations are also developing unmanned vehicles equipped with AI. The DARPA of the United States revealed the development of various unmanned

vehicles such as small unmanned aircraft for information gathering, surveillance, and reconnaissance (ISR), that is capable of air-launch, recovery, reuse, and swarm flying, and unmanned vehicles for submarine detection. Moreover, it promotes research on concept related to the cooperation of manned vehicles and unmanned vehicles such as research and development for automated air-to-air battle and the development of Skyborg², which successfully completed its second flight test in June 2021.

In May 2018, the China Electronics Technology Group Corporation successfully performed a swarm flight of 200 AI-equipped unmanned vehicles, and in September 2020, a Chinese state-owned munition company publicly shared the status of the UAV swarm test. It is assumed that military operations including such swarm flights will be difficult to counter with conventional air defense systems.

In September 2019, Russia conducted a coordinated flight test between S-70 heavy unmanned combat aerial vehicle “Okhotnik,” stealth heavy unmanned combat aerial vehicle, and the fifth-generation fighter Su-57, and released the flight test footage publicly. There is a reported possibility that four Okhotniks led by a two seated Su-57 jet are in charge of attacking targets in the air and on land.

² Development program for an unmanned airborne platform with high process capability; low-cost for possible losses; and capability for cooperative flight with manned aircraft.

Some have argued that autonomous unmanned vehicles could develop into so-called Lethal Autonomous Weapons Systems (LAWS). Within the framework of the United Nations Convention on Certain Conventional Weapons (CCW), discussion on LAWS is continued from the perspectives of their characteristics, human elements, and international law.

(2) Quantum Technology

Quantum technology is positioned as an important technology which brings innovation to society by applying quantum mechanics that differ from familiar physics that people sense every day. In December 2019, quantum cryptography communication, quantum sensors, and quantum computers were given as examples of quantum technologies expected for military application by the Defense Science Board, which is a consultation body for the U.S. Department of Defense.

Each nation is researching various issues of quantum communication, such as quantum cryptography communication which cannot be decoded by third parties. China has developed the world's longest quantum cryptographic communications network, extending over approximately 3,000 km and connecting Beijing and Shanghai. In addition, in August 2016, China launched "Mozi," the world's first satellite to test quantum cryptographic communications. In January 2018, China said that it succeeded in using Mozi for long-distance quantum cryptographic communication between China and Austria.

Mr. Griffin, U.S. Under Secretary of Defense for Research and Engineering at that time, stated in March 2020 that while too much optimism for application of quantum technology to defense had to be avoided, quantum sensors could be expected to improve navigational information, and there was a possibility for this to be achieved in the next few years.³ Furthermore, it is pointed out that quantum radar may be able to neutralize the stealth advantage of stealth aircraft by utilizing quantum characteristics.

It is pointed out that quantum computers can compute large problems in a significantly shorter amount of time and with less electricity consumption than existing supercomputers and can also be applied to areas such as decryption. Positioning quantum computer development

as a key science and technology project, China has invested approximately 7 billion yuan in a national laboratory for quantum information and technology and other facilities.

(3) Next Generation Information and Communication Technology

The fifth generation wireless mobile network system (5G) has been gaining traction since commercial services were launched in countries one after another in April 2019 as a private mobile communications infrastructure.

In March 2020, the United States announced the National Strategy to Secure 5G, and in May 2020, the U.S. Department of Defense 5G Strategy was announced, which indicates defense policy approaches of the national strategy. The DoD's strategy has indicated 5G as an extremely important strategic technology and that countries with proficient knowledge in cutting-edge technology developed via this will gain economic and military advantages. The DoD specified several bases as experimental facilities for 5G in the activities started in October 2019 to establish demonstrative infrastructures for 5G experiments in the U.S. military bases. A 5G network experimental facility was completed in the Hill Air Force Base in Utah in December 2021.

Blockchain technology⁴ used for virtual currencies is also expected to apply to the military sector. The United States selected it as one of the 20 Critical and Emerging Technologies in the National Strategy for Critical and Emerging Technologies issued in October 2020.

(4) Additive Manufacturing Technology

Additive manufacturing technology, as typified by three-dimensional printing, can produce goods that are too complex to be produced conventionally, at a much lower cost. Given this, 3D printer technology can bring revolutionary changes in logistics, such as not depending on the stock when procuring parts, and nations point out the military use of the technology. For example, the U.S. Army noted that the technology could trigger a real logistics revolution by making the transportation of spare goods unnecessary, and the U.S. Air Force announced it is manufacturing aviation engine parts that were pointed out to be in shortage.

³ According to the website of the U.S. Department of Defense on March 12, 2020.

⁴ A type of database in which data modification records are processed and recorded in a distributed manner using cryptographic technology.

4 Diffusion of Information-related Technology and Information Warfare

Concern about information warfare is rising, such as the dissemination of disinformation or the diffusion of information aiming to degrade the reliability of a government or split a society, using social networks (SNS). It is pointed out that this was observed during the annexation of Crimea by Russia in 2014, the probable intervention of Russia in the U.S. Presidential elections in 2016, Chinese activities for Taiwanese Presidential elections in 2020, and the Russian invasion to Ukraine in 2022. It is also pointed out that autonomous programs called bots are used a lot for this kind of SNS operation. Major social media companies have announced that they deleted accounts used for propaganda⁵ operations

by governments such as China and Russia, including bot accounts.

Information warfare by dissemination of disinformation like these may become stronger when done in conjunction with more effective use of AI and computing technologies. For this, the National Defense Authorization Act 2021 requires the U.S. Secretary of Homeland Security to issue a report about technologies used to imitate digital contents and their effect on security if used by foreign states. The U.S. Defense Advanced Research Projects Agency (DARPA) conducts research on algorithms to automatically detect imitated contents, focusing on consistency of images and sounds.

5 Trends Concerning Defense Production and Technological Bases

As mentioned above, advanced technologies based on significant technological advances in the civilian field have so much power that they can completely change the way battles happen. Relative merits in industry and technology greatly influence national security. Under these circumstances, many countries are taking on a variety of initiatives in order to maintain and enhance their national defense production and technological bases.

First of all, each country enhances investments to defense research and development to ensure technological superiority. For example, about half of the nearly 15 trillion yen invested in the government research expenditure of the United States is paid out by the DoD. This is in contrast to the situation in Japan in which research and development budget for the Ministry of Defense (MOD) is only around 3% of government research expenditure.

The United States also offers large-scale funds to research conducted by companies and universities. For example, the DARPA, one of the internal organizations of the DoD, requested a budget of US\$ 4,119 million in FY2023 to continue active investments towards innovative research in companies and universities, with the aim of maintaining U.S. Forces' technological

superiority. In addition, the Defense Innovation Unit (DIU) mediates between companies owning innovative technology and the DoD to make the most of cutting-edge technologies from the civilian field in the resolution of challenges in the security sector. The DIU has produced contracts with over 250 companies mainly in six fields, including AI, autonomous technology, and the cyber field. In FY2021, the DIU moved six consumer solutions suggested by companies from the prototype stage to the production stage.

China, being a promoter of Civil-Military Fusion (CMF) as a national strategy, is accelerating mutual technical exchanges between the military and civilians, as well as participation of civil capitals in the defense industry. China particularly focuses its efforts on the military applications of highly versatile technologies such as AI, quantum information, big data, and cloud computing.

In response to the recent utilizations of dual-use technologies in defense equipment development, the governments of the United Kingdom and Australia provide funding to innovative research and development of private sectors in order to acquire advanced civilian technologies.⁶

Furthermore, foreign countries organize systems

⁵ Propagation of a particular principle or ideology.

⁶ In the Defence and Security Industrial Strategy (DSIS) published in 2021, the United Kingdom announced that it will invest at least 6.6 billion pounds to defense research and development in four years, and that it will increase investments to the Defence and Security Accelerator (DASA) that invests in industrial and academic innovations that are useful for national security. Australia invests mainly in emerging technologies via the Next Generation Technologies Fund established in 2016.

to implement their policies through the publication of policy documents and the establishment of organizations in charge of defense industry. They recognize defense industrial base as a necessary element of national defense, and take on a variety of initiatives to maintain and strengthen their defense industrial base, such as supporting domestic companies to join government programs and promoting exports.

The United Kingdom published its Defence and Security Industrial Strategy (DSIS) in order to construct a more productive and strategic relationship with domestic defense industries in 2021. The DSIS orders the government to take on some initiatives such as large-scale procurement reforms, toughening of supply chains, and accelerating export permissions in order to strengthen defense as a critical strategic asset.

Australia created a new office of Minister for Defence Industry in 2016, and announced the Defence Industry Policy Statement in which projects to drive the partnership between the Department of Defence and defense industries were laid down. Australia also supports small and medium sized enterprises participating in the defense industry and keeps up with financial support through the Office of Defence Industry Support established in 2021 as a One-Stop organization to support the defense industry.

The Republic of Korea (ROK) aims an improvement of capabilities and higher self-containment of domestic defense industry through their Defence Industry Development Act and their Defence Science and Technology Innovation Promotion Act enforced in 2021. Furthermore, the Defense Acquisition Program Administration (DAPA) announced a policy to procure equipment taking into consideration the ripple effects for domestic industries, and a policy to promote

Fig. I-4-1-1

Top Ranking Countries in Major Conventional Arms Export (2017-2021)

Rank	Country or region	Shares in the total global exports of defense equipment (%) 2017-2021	Comparison with 2012-2016 (%)
1	United States	39	14
2	Russia	19	-26
3	France	11	59
4	China	5	-31
5	Germany	5	-19
6	Italy	3	16
7	United Kingdom	3	-41
8	Republic of Korea	3	177
9	Spain	2	10
10	Israel	2	-6

(Note) Created based on "SIPRI Arms Transfers Database." Only the top 10 countries by export value for 2017 to 2021 are indicated (figures are rounded to the nearest whole number).

cooperation between foreign companies and domestic companies as well as the use of domestic products by foreign companies.⁷

Each country exports equipment strategically because trading equipment strengthens the relationship between the two trading countries as well as the base for defense technology and the defense industry. For example, the United Kingdom announced in the DSIS that it would support exporting with cross-ministerial effort from different government offices such as the Department for International Trade and the Home Office. While the United States, Russia, European countries, and China stand high in equipment exports, other countries actively promote to export equipment through various initiatives. For example, Australia and Turkey formulated their export strategy⁸, and the ROK established an export supporting organization⁹ and supports research and development funds.

 Fig. I-4-1-1 (Top Ranking Countries in Major Conventional Arms Export (2017-2021))

6 Trends concerning Economic Security

While science, technology, and innovation are the focal points of interstate competition, security initiatives in each country have been focusing on measures in economic and technological fields.

The United States decided to strengthen export control, prior screening of inward investments, and

security for research, as well as to introduce government procurement rules through their National Defense Authorization Act 2019. In May 2019, the President issued an executive order (EO13873) to secure the information and communications technology and services supply chain, on the basis of recognition

⁷ The ROK announced the introduction of the Korea Defense Capability policy in 2021, which includes future policies.

⁸ Australia revealed its Defence Export Strategy in 2018, and Turkey announced its 2017-2021 International Cooperation and Export Strategic Plan.

⁹ The Defense Export Promotion Center was established in 2018.

that foreign adversaries are creating and exploiting vulnerabilities in information and communications technology and services to conduct malicious cyber activities, including economic and industrial espionage against the United States and its citizens.

The European Union (EU) strengthened Information sharing related to foreign investments within member states, starting full operation of its investment screening scheme in October 2020. In 2021, the United Kingdom conducted a public comment related to the creation of a Foreign Influence Registration Scheme with the aim to protect research in sensitive areas, etc. In January 2022, it enforced the National Security and Investment Act 2021 in order to strengthen the response to the investments with national security risks.

Australia enforced amendments to the Foreign Acquisition and Takeovers Act 1975 in January 2021 and the Security Legislation Amendment (Critical Infrastructure) Act 2021 in December 2021.

China, while trying to develop and acquire cutting-edge technologies for military use through Civil-Military Fusion (CMF) policies, enforced the Export Control Law in January 2020 and the Foreign Investment Security Review Measures in January 2021.

Moreover, each country is increasingly trying to grasp their own supply chains and take necessary actions.

In February 2021, the President of the United States, recognizing the need for resilient, diverse, and secure supply chains to ensure economic prosperity and national security, issued the executive order 14017. This order requires, for example, that the Secretary of Defense submits reports identifying risks in the supply chain for critical minerals and other strategic materials such as rare earth elements, giving policy

recommendations to address such risks, and providing details about supply chains of defense industrial base.

In June 2021, the White House then released its 100-day Supply Chain Review Report, to assess the present situation and challenges of supply chains in four areas, namely: semiconductors; critical minerals; high capacity batteries; and pharmaceuticals. Furthermore, one year review reports were issued in February 2022, identifying the main vulnerabilities of supply chains in six industrial bases (energy, transportation, agriculture and food production, public health and biological preparedness, information and communications technology, and defense), as well as recommendations of strategies to deal with these weaknesses.

In May 2021, EU updated its EU Industrial Strategy 2020 which covers the analysis results for sensitive products supply chains.

Moreover, each country is significantly increasing investments to research and development, not limiting to the defense sector. The United States is preparing to establish the Advanced Research Projects Agency for Health (ARPA-H) with a budget of around US\$6.5 billion for three years to drive high-risk and high-return break-through within biomedical research, as well as the Advanced Research Projects Agency-Climate (ARPA-C). Germany established the Federal Agency for Disruptive Innovation (SPRIN-D) to create rapid innovations in the country in December 2019, and anticipates 1 billion euros of funding for 10 years. The United Kingdom established the Advanced Research and Invention Agency (ARIA) specialized in investments for high-risk businesses in the front line of innovation. A 800 million pound budget has been allocated for the time being.

Section 2 Trends in Space Domain

1 Space Domain and Security

In recent years, technology leveraging space has been applied to various areas, growing more important as a key infrastructure for both the public and private sectors.

There is no concept of national borders in space, meaning that the utilization of satellites enables the observation of, communication at, and positioning on any area on the Earth. Thus, major countries make efforts to enhance the capabilities of a variety of satellites and launch them for the purpose of enhancing C4ISR (command, control, communication, computer, intelligence, surveillance, and reconnaissance), functions. Such satellites include satellites for reconnoitering military and other facilities, early warning satellites for detecting the launch of ballistic missiles, communication satellites for communications, and positioning satellites for enhancing the precision of weapons systems. Also, in the United States, the Space Development Agency takes the lead in implementing the mega constellation plan for launching several hundred small satellites for the detection and tracking of missiles, communication, reconnaissance, positioning and Situational Space Awareness (SSA). It is pointed out that by achieving this plan the United States would be able to detect and track hypersonic weapons, which are difficult to detect using ground-based radar, from space without delay. In space, various countries are thus rapidly developing their capabilities to ensure their military superiority.

Meanwhile, from the viewpoint of ensuring their military superiority, various countries are also rapidly developing their capabilities to impede each other's use of space.

In January 2007, China conducted a test to destroy one of its aging satellites with a ground-launched missile. Moreover, the United States points out to the possible generation of hundreds of thousands of small debris as a result of the satellite destruction experiment conducted by Russia on its own satellites in November 2021. Various countries have expressed concern about the destruction of satellites as stated above, as the generation of massive space debris is viewed as a risk to space assets, including the international space station

and their satellites.

Furthermore, countries including China and Russia are thought to be also developing an anti-satellite weapon (ASAT) that does not directly hit and destroy a satellite by a missile, thus creating less space debris. For example, it has been noted that ASATs under development include a “killer satellite” to approach a target satellite and utilize a robot arm to capture the target and disable its functions. On this point, it has been noted that China has carried out experiments in space in which they have maneuvered satellites close to other satellites to simulate the movements of a killer satellite. It has also criticized Russia for launching in 2019 another satellite that actively maneuvered near a U.S. satellite and had an “unusual and disturbing behavior” and condemned that such activity has the potential to create dangerous situations in space.

Furthermore, it has been pointed out that China and Russia are developing jammers for interfering with communications between target satellites and ground stations, as well as high energy technology such as laser weapons to attack target satellites. For example, during the International Aviation and Space Salon MAKS-2021, Russia displayed a model of its nuclear-powered propulsion space ship “Zeus”, presumed to be able to conduct electromagnetic pulse attack.

While threats in space, including the development of such various countermeasures, are pointed out to be growing, the United States and other countries increasingly position space as a warfighting domain or an operational domain, making space security an urgent challenge.

As the above illustrates, the risk to the stable use of space has become one of the critical security challenges for countries, thus it has become necessary to deal with this risk effectively in an effort to ensure stability in the use of space.

Against this backdrop, the existing international agreements do not have direct provisions on prohibiting the destruction of space objects and refraining from actions triggering space debris. Discussion has been under way recently by the United Nations Committee

on the Peaceful Uses of Outer Space (COPUOS) and the Inter-Agency Space Debris Coordination Committee (IADC). In December 2021, the resolution “Reducing space threats through norms, rules and principles of responsible behaviours,” jointly proposed by Japan, the United Kingdom and others, was adopted by the General Assembly of the United Nations after being approved by 150 countries. Due to the resolution, an open-ended working group will be held from 2022 to 2023 to deepen

related discussions. Moreover, countries are working on Space Situational Awareness (SSA) by monitoring the solar activity with a potential impact on satellites and electronic equipment on the Earth, and threats caused by meteors reaching Earth, in addition to threats posed by ASATs and space debris to space assets.

 See Part III, Chapter 1, Section 3-1 (Responses in Space Domain)

2 Various Countries' Space Initiatives

1 The United States

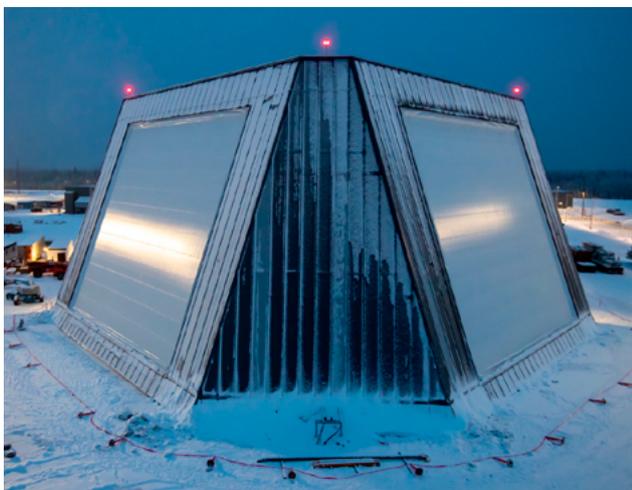
The United States has proceeded with a variety of space activities in fields including military, science, and resource exploration, such as launching the world's first reconnaissance satellite and landing on the Moon. The United States is the world's leading space power. This includes the world's first launch of a private-sector manned space flight by SpaceX in May 2020. The U.S. Forces clearly recognize the importance of space for their actions, and on this point, actively utilize space for security purposes.

In addition, the United States revealed its recognition that “Space is now a distinct warfighting domain” in its Defense Space Strategy (DSS) issued in June 2020, and is acquiring capabilities to ensure space stability. For example, the U.S. Space Force launched a newly developed satellite in June 2021, managing to develop it in 11 months compared to 2-5 years for conventional satellites. It is pointed out that this kind of readiness

to develop and launch satellites takes off the merit of having competitors spread conflicts to the space domain. Moreover, in December 2021, the U.S. Missile Defense Agency announced the deployment in Alaska of the new Long Range Discrimination Radar (LRDR) for missile defense, which has space situation surveillance capability.

About policies, the U.S. National Security Strategy (NSS) released in December 2017 pointed out that some countries are pursuing a variety of ASATs on the basis of the belief that the capability to attack assets in space will give them asymmetrical advantages. The United States released its National Space Strategy in March 2018, demonstrating its recognition that its adversaries had turned space into a warfighting domain and vowing to deter and defeat threats in the space domain to protect the national interests of the United States and its allies. Additionally, the DoD appraises China and Russia as the most serious and eminent threats in their Defense Space Strategy (DSS). It also establishes the three targets of (1) build a comprehensive military advantage in space; (2) integrate military space power into national, joint, and combined operations; and (3) secure a stable space domain. Furthermore, the United States government says it will continue to use space for national security activities under the principles of the peaceful use of space found in the National Space Policy (NSP) announced in December 2020.

Among U.S. government organizations, the National Aeronautics and Space Administration (NASA) under direct control by the President is responsible mainly for non-military space development, while the DoD undertakes research, development, and operation of military observation and reconnaissance satellites. In August 2019, the United States inaugurated the



Long Range Discrimination Radar (LRDR) [U.S. Air Force]

U.S. Space Command as a new geographic unified combatant command based on the Strategic Command's component in charge of space missions. In December 2019, the United States created the Space Force under the Department of the Air Force as the sixth military branch, with approximately 16,000 personnel. Moreover, the U.S. Air Force Research Laboratory started construction of a cutting-edge space environment research facility in March 2021, planning to start operation in 2022.

 See Chapter 3, Section 1-2 (Military Posture)

2 China

China began working on space development in the 1950s. Recently, in January 2019, China became the first country in the world to land an unmanned spacecraft, called “Chang’e 4” on the far side of the moon, and in September 2020, it successfully launched a satellite payload rocket called “Long March 11” from a ship in the Yellow sea. China is stimulating its spacial activity through, for example, the launch of “Tianhe”, the core module of China Space Station (CSS), in April 2021,¹ and the successful docking of manned spacecraft “Shenzhou 13” with “Tianhe” in October of the same year.

While traditionally emphasizing international cooperation and the peaceful use of space, China has not ruled out its military use of space and proactively used space for military purposes, including information collection, communications, and positioning through satellites. For example, it is pointed out that the “BeiDou” satellite positioning system can be used for guidance of missiles as well as navigation of aircraft and ships, and “Yaogan systems” launched several times in 2021 for electromagnetic environment surveillance can be used for electronic reconnaissance. Both systems are said to have the possibility of being used for military matters. Moreover, a Chinese state-owned corporation reportedly develops and manufactures not only transport rockets such as the “Long March” series but also ballistic missiles, the technology for transport rockets having the possibility to be applied to ballistic missiles. While China conducted a satellite destruction

experiment in 2007 as mentioned above, other anti-satellite missile experiments² without destruction were also conducted including the one in July 2014. Besides, it is also pointed out that China develops hunter-killer satellites, radio wave interference apparatus (jammer), and weapons using directional energy such as laser ray.³

China is thus expected to focus on space development through close cooperation between government, military, and private sectors. China is now considered to have become one of the space powers, and it has been suggested that China could threaten U.S. superiority in space in the future.⁴

In regard to policies, in its 2019 defense white paper released in July 2019 and titled “China’s National Defense in the New Era,” China asserts that space is a critical domain in international strategic competition and that space security provides strategic assurance for national and social development. China revealed its policy to accelerate the development of aerospace fields in the “14th Five-Year Plan” and the “Long-Range Objectives through the Year 2035” adopted at the National People’s Congress held in March 2021. In addition, it announced that it would develop aerospace businesses, emphasizing that it is “constructing a space power” in its white paper “China’s Space Program” published in January 2022.

The Strategic Support Force, established in December 2015 as a force under direct control by the Central Military Commission, is considered to be in charge of space, cyber, and electronic warfare missions, including the launching and tracking of satellites, although the details of its missions and organization have not been published. The Equipment Development Department of the Central Military Commission is believed to be in charge of crewed space programs.

3 The Republic of Korea (ROK)

The ROK’s space development is promoted based on the Third Basic Space Development Promotion Plan announced by the Moon administration under the Space Development Promotion Act implemented in 2005. The plan proposes a vision towards 2040, giving priority

1 In May 2021, China announced that a fragment of the “Long March 5B” used for this launch had fallen in the Indian Ocean. In response, NASA released an Administrator Statement saying that “It is clear that China is failing to meet responsible standards regarding their space debris.”

2 According to the “Worldwide Threat Assessment,” the U.S. Director of National Intelligence (February 2015)

3 According to the “Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (May 2019)

4 According to the annual report of the U.S.-China Economic and Security Review Commission (November 2015)

to (1) the establishment of its own launch vehicle technology, (2) the advancement of satellite-using services and satellite development, (3) the initiation of space exploration, and (4) the development of the Korean Positioning System (KPS). Furthermore, the ROK is accelerating aerospace development, aiming to have its own launch means, after the U.S. lifted restrictions on South Korea's ability to develop missiles under an agreement about missiles reached by the two countries in May 2021. For example, the ROK launched a domestically produced rocket called "Nuri" in October 2021, and is planning five other launches by 2027.

Among organizations, the Korea Aerospace Research Institute leads research and development as an implementation agency. Furthermore, the Korea Agency for Defense Development is engaged in the development and use of various satellites. Also, to secure space surveillance capabilities above the Korean Peninsula, the country created the Air Force Satellite Surveillance and Control Unit, the country's first space force, in 2019. The name of this force was changed to the Air Force Space Operation Unit in 2020.

The ROK's Ministry of National Defense says it plans to secure surveillance, reconnaissance, and early warning satellites in order to strengthen space related capabilities.⁵

4 Russia

Russia's space activities have been continuing since the former Soviet Union era. The former Soviet Union successively launched multiple satellites and had the largest number of launched satellites in the world until the collapse of the Soviet Union. While Russian space activity has been reduced since the collapse of the Soviet Union in 1991, it has become active again in recent years. For example, Russia plans to construct the "Sfera" satellite constellation system consisting of 600 satellites for observation, atmospheric phenomena, communication, and positioning by 2030. In addition, Deputy Prime Minister Borisov revealed a plan to withdraw from the International Space Station after 2025 and to develop Russia's own space station during a TV show of the government-run television in April 2021.

Meanwhile, Russia has used its space capabilities

for military operations in Syria. Russian Minister of Defense Shoigu revealed at a meeting of the Ministry of Defence in 2019 that he has become aware of the need to rebuild the country's military satellites based on this tactical experience. Russian missile defense capability is continuously being strengthened. For example, its fifth early warning satellite "Tundra" was successfully put into orbit in November 2021. In addition, during the same month, the Russian Ministry of Defense announced that it had successfully destroyed a Soviet satellite in orbit.

On the other hand, the remark of the director of the State Space Corporation ROSCOSMOS during a Russian congress, which said that satellite manufacturers have many uncompleted satellites because of the microchip shortage resulting from Western economic sanctions, indicates that parts of satellite production face difficulties.

In regard to Russian policies, in March 2016, Russia released the Federal Space Program for 2016-2025 as a specific future guideline for space activities, including the development and deployment of domestic space satellites and crewed flight programs.

From an organizational perspective, ROSCOSMOS is in charge of space activities related to Russia's scientific and economic areas, while the Russian Ministry of Defence is involved in space activities for security purposes. The Russian Aerospace Forces, into which the Air Force and the Aerospace Defence Forces were integrated in August 2015, conduct actual space activities for military purposes and manage facilities for launching satellites.

5 India

India has promoted programs to develop manned space missions, communications, positioning, observation, etc. At their second meeting of their foreign and defense ministers in October 2020, the United States and India stated their intentions to continue discussing defense cooperation in space.

India is believed to have operated the Navigation Indian Constellation (NavIC) satellite as a positioning satellite that can position locations around India. In February 2017, India successfully launched a satellite launch vehicle loaded with 104 satellites at low cost,

⁵ According to the ROK Defense White Paper 2020 (February 2021)

which indicates its high technological capabilities. In February 2021, India revealed its manned spacecraft policy, announcing that it would start planning for its first manned spacecraft “Gaganyaan”. In March 2019, Prime Minister Modi announced that the country successfully tested a missile to destroy a low-orbit satellite.

Among organizations, the Space Agency oversees the Indian Space Research Organization (ISRO), which implements space development policy, develops and launches launch vehicles, and develops and manufactures satellites. It has been reported that the Ministry of Defence approved the creation of the Defence Space Agency (DSA) to control ASATs and other space assets, and to plan defense policies regarding space in April 2019. The ministry also approved the establishment of the Defence Space Research Agency (DSRA) to develop weapons and technology for space warfare in June 2019.

6 Europe

Regarding European space activities, the EU, the European Space Agency (ESA), and European countries are promoting their own unique space activities and are cooperating with each other to implement space activities.

EU allocated 14,880 million euros to the space policy of the medium-term budget plan from 2021 to 2027, and, in May 2021, established the European Union Agency for the Space Programme (EUSPA) that bears responsibility for execution of EU space programs, including the safety management of satellite positioning system. A satellite positioning system called “Galileo” and an Earth observation program named “Copernicus” under planning by the EU and ESA, and a reconnaissance satellite project called “Multinational Space-based Imaging System (MUSIS)” of the European Defense Agency (EDA) are expected to be utilized for the security field in Europe.

Also, in June 2019, NATO approved a space strategy forming the guidelines for NATO’s approach to space. In December the same year, at the NATO leaders’ summit, space was declared as the “fifth tactical domain” next to land, sea, air and cyberspace. This shows NATO’s awareness concerning the importance of security in the space domain. In October 2020, the NATO Defense Ministers Meeting was held, where an agreement was reached to establish a new space center in Ramstein,

Germany. Furthermore, in the Communiqué issued at the June 2021 NATO Summit, it was stated for the first time that an armed attack in space could lead to the invocation of NATO’s right of collective self-defense.

The United Kingdom, which exited the EU at the end of 2020, announced in January 2021 that it would not participate in the Galileo Program. Moreover, the Space Command was formally established in April 2021, and reportedly bears three functionalities, namely: space operations; training and education for space related personnel; and space capability (development and service of space equipment plan). In regard to strategy, it announced to invest 1.4 billion pounds to some fields including ISR and satellite communication in the next ten years in the National Space Strategy released in September 2021 and Defence Space Strategy published in February 2022.

France made reference to the creation of a space command and the enhancement of threat identification and space situation surveillance capabilities in the Space Defence Strategy released in July 2019. In September 2019, France created the space command under the Air Force to integrate functions and personnel of a military space surveillance operation center, a joint space command and a military satellite surveillance center within the Armed Forces Ministry. Also, in September 2020, the country changed the name of the Air Force to the Air and Space Force, adding activities for guaranteeing freedom of behavior in space and free access to space within the operations of the Air Force.

Section 3 Trends in Cyber Domain

1 Cyberspace and Security

With the growing use of the IoT, AI, 5G, and cloud services, as well as teleworking becoming more common, information and communications networks have become an indispensable part of the economy and society. Cyber attacks on information and communications networks can therefore have a serious impact on people's lives. In addition, cyber attacks that are part of espionage in cyberspace pose a real threat to national security.

Types of cyber attacks include unauthorized access to information and communications networks, functional disruption through the delivery of computer viruses via e-mail, data falsification and data theft, functional impairment of the networks through simultaneous transmission of a large volume of data, and attacks intending to shut down or take over systems of critical infrastructure, such as electric power systems. Moreover, as the possibility of cyber attacks using AI

is also pointed out, network-related technologies are constantly evolving, with cyber attacks becoming more and more advanced and sophisticated by the day.

For military forces, information and communications capabilities form the foundation of command and control, which extend from the central command to units at the end of a command chain. In this regard, Information and Communications Technology (ICT) advancements are further increasing the dependence of military forces on information and communications networks. Since it is difficult to ascertain the actor responsible for cyber attacks and damages incurred, cyber attacks are recognized as an asymmetrical means to impede military activities of adversaries at low cost. It is believed that many armed forces are developing offensive cyber capabilities.

2 Threats in Cyberspace

Cyber attacks have frequently been carried out against information and communications networks of not only government organizations and military forces but also business corporations and academic organizations in various countries. Attacks attempting to steal critical technologies, secrets or personal information have been confirmed. For example, advanced persistent threat (APT) and other relentless cyber attacks focusing on specific bodies require abundant resources, arrangements and capabilities, being viewed as organized activities. To respond to such advanced cyber attacks, Japan is required to share threat awareness with foreign countries for technological and operational cooperation. Moreover, the number of countries and cyber attack organizations that have the capability to conduct information theft and influence operations to the people, as well as inflict damages to industry and critical infrastructure tends to increase, and the United

States is especially concerned about Russia, China, Iran, and North Korea. It is believed that, making a similar judgement,¹ different countries' armed forces are strengthening their cyber attack capabilities.

1 China

It has been alleged that cyber warfare units have been formed under the Strategic Support Force that was created as part of China's military reforms in late December 2015. The units are estimated to consist of 175,000 troops, including 30,000 for cyber attacks. Taiwanese Ministry of National Defense recognizes China as a security threat in cyberspace, pointing out that the country accurately grasps the targets for cyber attacks by information collection and information theft in peace time, and in war time, aims to injure the capabilities of the government and armed forces by

¹ According to the "Worldwide Threat Assessment," the U.S. Director of National Intelligence (April 2021).

destructing key infrastructures and information systems, destabilizing the society and creating confusion.² China's 2019 defense white paper, released in July 2019 and titled "China's National Defense in the New Era," stated that China's armed forces are accelerating the building of their cyberspace capabilities. Given the above, China is believed to have been enhancing its military's cyber warfare capabilities.

 Chapter 3, Section 2-2-5 (Military Posture)

China is suspected of conducting cyber attacks and other activities to steal confidential information even in peacetime.³ For example, its involvement in the following incidents has been pointed out.

- In January and February 2018, Chinese government hackers hacked a U.S. Navy contractor, leading to a leak of classified information on supersonic anti-ship missiles mounted on submarines.
- In December 2018, such countries as the United States announced that the APT10 cyber group related to China's Ministry of National Security conducted cyber attacks on intellectual and other properties in at least 12 countries.
- In Japan, it has been confirmed that the APT10 group conducted extensive cyber attacks on private enterprises, academic organizations and other targets.
- In 2017, a U.S. consumer credit information company came under the cyber attacks stealing personal information including names, birthdates, social security numbers, driver's license numbers, and credit card numbers. In February 2020, the U.S. Department of Justice prosecuted four Chinese military-related persons for their alleged involvement in the cyber attack.
- In July 2020, the U.S. Department of Justice prosecuted two individuals who were alleged to be related to China's Ministry of State Security for launching a cyber attack aimed at stealing intellectual property and trade secrets from private companies, including companies involved in the development of vaccines for COVID-19.
- In July 2021, the United States revealed that the cyber attack detected in March 2021 aiming a vulnerability

of Microsoft Corporation's mail server software was conducted by a responsible organization related to the Ministry of National Security of the People's Republic of China. The allied countries of the United States, including Japan, condemned China all together on the same day.

2 North Korea

North Korea has four major internal and external intelligence agencies which consists of the Reconnaissance General Bureau (RGB), the Ministry of State Security, the United Front Department of the Workers' Party of Korea, and the Cultural Exchange Bureau. It is pointed out that their main targets are the ROK, the United States, and Japan.⁴ Moreover, it has been pointed out that their personnel are trained by the authorities⁵ lead by the RGB of Korean People's Army, and has intensively built up cyber units, operating some 6,800 people.⁶

It also is said that North Korea, which is under sanctions of every kind, uses cyber attacks to acquire foreign currency taking advantage of loopholes of sanctions.⁷ It also commits thefts of foreign military secret intelligence, and develops attack capabilities for the critical infrastructure of other countries. North Korea is suspected of having been involved in the following incidents.

- In May 2017, a cyber attack used a malware called WannaCry to encrypt and neutralize electronic data held by hospitals, schools, businesses, and other entities in more than 150 countries. Japan, the United States, the United Kingdom, Australia, Canada, and New Zealand announced a statement blaming North Korea for its involvement in the attack. It was pointed out that this cyber attack succeeded in collecting 140,000 dollars in Bitcoins.
- In February 2021, the U.S. Department of Justice prosecuted three North Koreans working under the North Korean Reconnaissance General Bureau on suspicion of involvement in a cyber attack.
- In the final report of the UN Security Council's Panel of Experts assisting the North Korea Sanctions

² According to Taiwan's National Defense Report (November 2021).

³ According to "Cyber Strategy," U.S. DoD (September 2018).

⁴ According to "North Korea Military Power," Defense Intelligence Agency (October 2021).

⁵ According to the ROK Defense White Paper 2016 (January 2017).

⁶ According to the ROK Defense White Paper 2020 (February 2020).

⁷ According to "North Korea Military Power," Defense Intelligence Agency (October 2021).

Committee (“Final Report of the Panel of Experts submitted pursuant to resolution 2515 (2020)”) released in April 2021, the Panel evaluated continued attacks against financial institutions and virtual currency exchange houses for generating revenue that supports the country’s weapons of mass destruction and ballistic missile programs. The total amount of that money has been equal to US\$316,400 thousand from 2019 to November 2020.

- Korea Atomic Energy Research Institute (KAERI) revealed in May 2021 that the North Korean cyber group invaded the internal network of KAERI exploiting the VPN server’s vulnerabilities.

3 Russia

It has been pointed out that the Main Intelligence Directorate of the General Staff of the Russian Armed Forces (GRU), the Federal Security Service of the Russian Federation (FSB), and the Foreign Intelligence Service (SVR) are involved in cyber attacks. It has also been revealed that the Russian military has its own cyber command unit.⁸ Those are believed to be responsible for conducting offensive cyber activities, including dropping malware into command and control systems of adversaries,⁹ with approximately 1,000 personnel. Moreover, Russia revealed, in its National Security Strategy released in July 2021, its perception that outer space and information space are under active development as a new domain for military action, and declared to reinforce its sovereignty in the information space as a national priority. In November 2019, the so called Sovereign Internet Law went into effect to ensure Russian network’s durability. The law stipulates that the internet would be cut out from the global network in the event of a cyber attack or other circumstances.

The United States recognizes Russia as the biggest ongoing threat in the cyberspace¹⁰ because the country is refining its spy activities, influence exercise behavior, and attack capabilities. For example, involvement in the following incidents have been pointed out.

- In June 2017, cyber attacks using the so-called “NotPetya” ransomware occurred in Ukraine and

other countries. In February 2018, the U.S. and U.K. governments attributed those attacks to the Russian military.

- In February 2020, U.S., U.K., Georgian and other governments announced that the GRU was responsible for large-scale cyber attacks on Georgian government agencies and media organizations in October 2019.¹¹
- In October 2020, the U.S. Department of Justice announced the prosecution of six officers of the GRU for being involved in cyber attacks on the Ukrainian power networks in 2015 and 2016 and cyber activities against the Pyeongchang Olympics in 2017 and 2018. The U.K. supported the announcement by the U.S. The U.K. also announced that Russia had conducted cyber reconnaissance on organizations related to the Tokyo Olympics and Paralympics in 2020.
- In December 2020, it became clear that U.S. government agencies had been exposed to cyber espionage over a long period of time. In relation to this case, the U.S. government asserted in January 2021 that the aim of this attack was to collect information, and in April 2021, the governments of the U.S. and U.K. announced the attack was by the Foreign Intelligence Service (SVR).
- In April 2021, the U.S. Government sanctioned 32 entities and individuals who carried out attempts led by the Russian Government to influence the 2020 U.S. presidential election, and other information falsification and interference.
- The Security Service of Ukraine revealed in November 2021 that cyber groups related to the Russian FSB conducted cyber attacks to Ukraine’s public organizations and critical infrastructure since 2014, with the intention of gaining control of such infrastructures, conducting intelligence activities and influence operations, and disturbing Ukraine’s information systems.
- In February 2022, the governments of the United States, the United Kingdom, and Australia pointed out that the cyber attacks to Ukraine financial institutions were conducted by Russian GRU.

⁸ According to the statement made by Russian Minister of Defence Shoigu in an information session for Duma, the lower house, in February 2017. He said that the Russian military has a cyber command for countering political propaganda in the context of Russia’s ongoing information war with Western countries. However, the minister fell short of naming the command.

⁹ According to then U.S. Director of National Intelligence Clapper’s written testimony on “Worldwide Cyber Threats” at the House Permanent Select Committee on Intelligence in September 2015.

¹⁰ According to “Worldwide Threat Assessment,” the U.S. Director of National Intelligence (April 2021).

¹¹ According to a U.S. Department of Justice announcement in February 2020.

4 Trends Concerning Other Threats

Supply chain risks, including products embedded with deliberately and fraudulently altered programs, and the existence of advanced malware designed to attack industrial control systems are also pointed out.

In this respect, the U.S. Congress in August 2018 passed the National Defense Authorization Act of 2019 including provisions prohibiting government agencies from using products of major Chinese communications equipment manufacturers, such as Huawei Technologies Co. The United States has provided its allies with information about risks accompanying Chinese communications equipment and urged them not to use such equipment. In response, Australia has banned China's Huawei and ZTE Corporation from taking part

in its fifth-generation mobile communications system development project, while the United Kingdom has announced its policy to remove all Huawei products from its fifth-generation mobile communications system network by the end of 2027.

Moreover, in the midst of the turmoil caused by COVID-19, cyber attacks that steal information on vaccine and treatment research data from pharmaceutical companies and research institutions and exploit the vulnerability of remote work infrastructure are frequently occurring. In response to this situation, NATO issued a statement in June 2020 condemning malicious cyber activities against those involved in pandemic responses, including medical and research institutions.

3 Initiatives Addressing Threats in Cyberspace

Given these growing threats in cyberspace, various initiatives are under way.

It is regarded that the international community has diverging views concerning the fundamental matters of cyberspace, including how international law applies. For instance, the United States, Europe, and Japan have called for maintaining a free cyberspace, while Russia, China, and most emerging countries have sought to strengthen state control on cyberspace. Against this backdrop, there has been a movement to promote the rule of law in cyberspace in the international community. For instance, discussions are being held on the establishment of international rules within the framework of global conferences on cyberspace.

 See Part III, Chapter 1, Section 3-2 (Response in Cyber Domain)

In addition, new life styles including teleworking, education using ICT, and web conference services have been established all over the world as a response to COVID-19 since 2020. On the other hand, new security measures are being considered in many countries as the limits of “perimeter security”¹² concept, a major premise for traditional cybersecurity measures, are pointed out according to the development of the digital services mentioned above.

1 The United States

In the United States, the Department of Homeland Security is responsible for protecting federal government networks and critical infrastructure against cyber attacks, and the Department's Cybersecurity and Infrastructure Security Agency (CISA) works to protect the networks of government agencies. In October 2021, the U.S. Secretary of State Blinken announced that the State Department intended to establish a new Bureau of Cyberspace and Digital Policy that would work to address issues such as international cyber security and international digital policy.

The U.S. NSS (December 2017) points out that



Announcement by Secretary of State Blinken
[U.S. Department of State]

¹² A security concept to set up a perimeter between the inside and the outside of a network to defend against attacks from the outside and prevent information spillage from the inside. The perimeter security concept is based on the assumption that nothing untrusted gets into the inside of the perimeter and that everything inside is trusted. The main targets of defense are networks.

many countries now view cyber capabilities as tools for projecting influence and that cyber attacks have become a key feature of modern conflict. It also notes that the United States would deter, defend, and when necessary defeat malicious actors who inflict cyber attacks on the United States. In response to this, the U.S. DoD in its National Defense Strategy (January 2018) described a policy of investing in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operations. Furthermore, the DoD Cyber Strategy (September 2018) points out that the United States is engaged in a long-term strategic competition with China and Russia, and that China and Russia have expanded that competition to include persistent campaigns in and through cyberspace that pose long-term strategic risk to the United States as well as to its allies and partners.

The next generation security infrastructure is also under consideration to enhance cybersecurity in federal government agencies. For example, in September 2021, the Office of Management and Budget and CISA released for public comment a document regarding the zero trust security model.¹³

At the Japan-U.S. “2+2” Meeting in April 2019, the two countries agreed to strengthen cooperation in the field of cyberspace, affirming that international law applies in cyberspace and that a cyber attack could, in certain circumstances, constitute an armed attack for the purposes of the Japan-U.S. Security Treaty.

The U.S. Forces include Cyber Command, which was elevated to a unified combatant command in May 2018 to control cyberspace operations. The Command consists of the Cyber Protection Force (68 teams), which operates and defends the DoD Information Network, the Cyber National Mission Force (13 teams), which supports the U.S. defense against national-state threats, and the Cyber Combat Mission Force (27 teams), which supports the operations conducted by unified combatant commands on the cyber front (these three Forces are collectively referred to as the Cyber Mission Force, consisting of 133 teams including 25 support teams, with approximately 6,200 personnel). In addition, in November 2021, the Cyber Command conducted “Cyber Flag 21-1”, a multilateral cyber

exercise involving more than 200 cyber personnel from 23 countries, to improve the ability of the United States and its allies to identify, synchronize, and respond to malicious cyberspace activities.

2 Republic of Korea (ROK)

In December 2018, the ROK released the “National Security Strategy of the Moon Jae-in Government,” pledging to enhance cyber threat prevention and response capabilities based on cooperation among private, government and military sectors in responding to cyber threats and to activate relevant international cooperation. The ROK also formulated its first “National Cybersecurity Strategy” in April 2019 to protect the safety of the people and enhance national security, and released the “National Cybersecurity Basic Plan” to materialize the strategy in September 2019.

In terms of national defense, the ROK’s military has established a structure to perform cyber operations led by the Joint Chiefs of Staff in 2019, while developing a collaborative system between the Joint Chiefs of Staff, Cyber Operations Command, and each military branch in enhancing its cyber operations preparedness and ensuring effective response to threats in cyberspace. The Military Cyber Command was restructured into the Cyber Operations Command in February 2019. In addition, the Cyber Protection Center of each military branch was restructured into the Cyber Operations Center with an increased number of personnel.¹⁴

3 Australia

In the Cyber Security Strategy announced in August 2020, Australia clearly states it will ensure not only its defense capabilities in cyberspace, but also its authority and technical strength of offensive capabilities in order to ensure the country’s network safety. Moreover, leaders of Australia, the United Kingdom, and the United States announced in September 2021 to establish the security cooperation framework AUKUS, in which they cooperate for a joint development of nuclear submarines, cyber capabilities, artificial intelligence, and quantum technology.

¹³ A security concept based on the view of human nature as fundamentally depraved. In this concept, regardless of something being inside or outside of one’s perimeter, nothing is trusted and everything is doubted. Users, devices such as terminal units are doubted, or even once authorized access privilege is suspended in a dynamic fashion if there is a high possibility of spoofing etc. The main targets of defense are assets such as data or devices.

¹⁴ According to the ROK Defense White Paper 2020 (February 2021).

On the organizational front, cybersecurity capabilities across the government were converged to establish the Australian Cyber Security Center (ACSC), which addresses major cybersecurity issues related to government agencies and critical infrastructure. In July 2015, the ACSC issued its first report on cybersecurity, which contends that the number, type, and sophistication of cyber threats to Australia are all increasing. Moreover, the Australian Defence Force created the Information Warfare Division under the Joint Capabilities Group in July 2017 and established the Defence Signals Intelligence and Cyber Command under the division in January 2018. In October 2019, the Royal Australian Air Force offered to recruit cyber skills officers to protect networks, data and information systems.

4 Europe

At the NATO Summit in September 2014, an agreement was reached that NATO's collective defense applies to cyber attacks against member states.

On the organizational front, in November 2017, an agreement was reached on the creation of a new Cyber Operations Center and the integration of NATO member countries' cyber defense capabilities into NATO missions and operations. The Cyber Operations Center located in Belgium is expected to be fully operational with cyber attack capabilities by 2023.

Furthermore, in 2008, the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE) was authorized to serve as a research and training institution, and was established in Tallinn, the capital of Estonia. The CCDCOE carries out research on the relationship between cyber activities and international law and published the "Tallinn Manual 2.0" in February 2017. The manual takes broad discussion points into consideration, from peacetime legal regimes, such as laws on state responsibility, human rights, aviation, space, and maritime affairs, to contingency legal regimes, such as laws on armed conflicts. In December 2020, initiatives have started to update this manual to version 3.0. In December 2019, NATO held its "Cyber Coalition 2019" exercise, in which Japan officially

participated for the first time with 27 NATO member states and the EU. In April 2021, Japan also officially participated for the first time in "Locked Shields 2021," a cyber defense exercise hosted by the CCDCOE.

The EU announced its decision to sanction six individuals of Chinese and Russian nationality and three organizations from China, North Korea, and Russia that launched cyber attacks within Europe in July 2020. In addition, it made a joint announcement with the United Kingdom in October of the same year that it would impose sanctions on Russia for cyber attacks on the German parliament building. In December 2020, the EU pointed out the lack of collective situational awareness on cyber threats within the region, and advocated for the establishment of a cross-disciplinary Joint Cyber Unit between the private, diplomatic, police and defense sectors in the EU's Cybersecurity Strategy for the Digital Decade. In June 2021, a concrete structural conception of this Joint Cyber unit was announced.

The United Kingdom held up five strategic objectives including detection, disruption, and deterrence of adversaries in its National Cyber Strategy published in December of the same year, and announced to invest 2.6 billion pounds to the cyber field in the next three years.

On the organizational front, in October 2016, the National Cyber Security Centre (NCSC) was newly established under the Government Communications Headquarters (GCHQ) to promote public-private partnerships for responses to national cyber incidents. Moreover, the 13th Signal Regiment was established in June 2020 for the protection of military networks. In November 2020, the establishment of the National Cyber Force (NCF) was announced, which consolidates personnel from GCHQ, the Ministry of Defence, and others to carry out activities such as preventing serious crimes and disrupting adversary weapon systems.

France established their Cyber Defense Command under the Chief of the Defence Staff in May 2017. In September 2021, Minister of the Armed Forces Parly announced to increase the Command's troop strength to around 5,000 members by 2025 to strengthen France's cyber defense capabilities, pointing out the increase and the severity of cyber attacks to the country.

Section 4 Trends in Electromagnetic Domain

1 Electromagnetic Domain and Security

In everyday life, electromagnetic spectrum are used in various applications including televisions, mobile communications, and global positioning systems. In the defense field, it is used for command and control communications equipment, radar systems for detecting enemies, missile guidance systems, and other equipment. Securing superiority in the electromagnetic domain is indispensable for modern operations. Activities using the electromagnetic domain include “electronic warfare” and “electromagnetic spectrum management.” Means or approaches of electronic warfare are generally classified into three categories - electronic attack, electronic protection and electronic warfare support.

See Fig. I-4-4-1 (How to Use the Electromagnetic Domain in the Defense Field)

“Electronic attack” is jamming against adversary communications or radar equipment by emitting strong or fake radio waves to reduce or neutralize adversary communications or search capabilities by emitting.

See Section 1-2 (2) (High-power Energy Technology)

“Electronic protection” is to make equipment stealthy and difficult to be detected by adversary, and to change radio wave frequency or increase its power to reduce or neutralize adversary electronic attacks on communications and radar equipment.

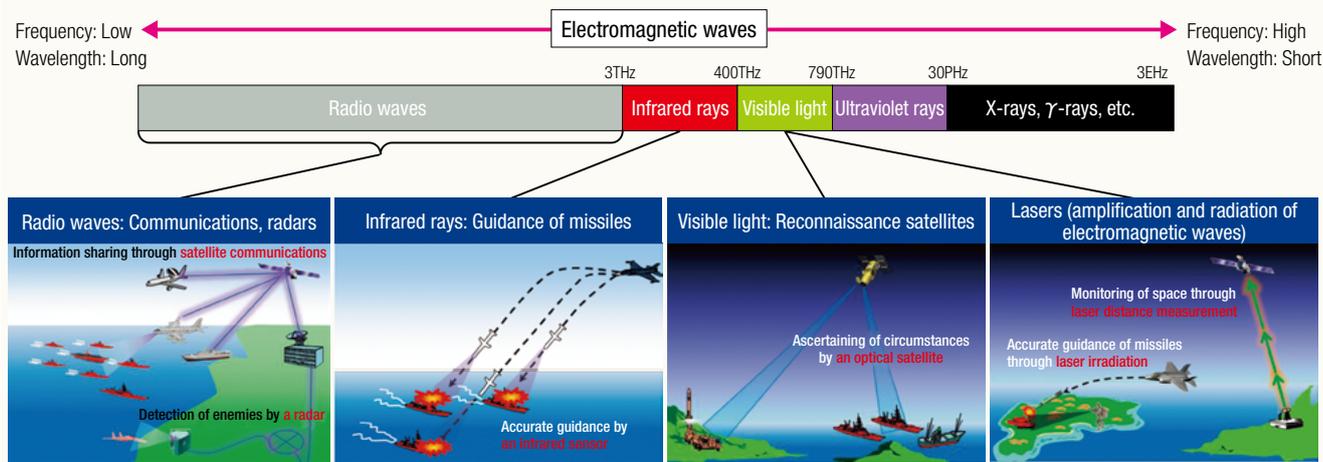
“Electronic warfare support” consists of

activities designed to collect information relating to electromagnetic spectrum used by adversaries. It is necessary for effective electronic attacks or protection to detect and analyze what electromagnetic spectrum is used by adversaries for communications or radar equipment and electronic attack aircraft in peacetime. In electronic warfare, it is desirable to fight effectively even when electromagnetic spectrum used by adversaries is not detected and analyzed in advance. For example, AI may be mounted on or used for equipment to immediately analyze jamming and automatically select the most invulnerable wave frequency.

“Electromagnetic spectrum management” means the control and adjustment of electromagnetic spectrum use to facilitate electromagnetic domain activities such as electronic attacks and protection. Specific measures for the control include the detection of how electromagnetic spectrum is used in a theater of operation, as well as the adjustment of frequencies, directions and durations of electromagnetic spectrum used for friendly forces and equipment to avoid electromagnetic spectrum interference. At present, research is being conducted on technologies for detecting and visualizing how electromagnetic spectrum is used.

Major countries apparently recognize electronic attacks as asymmetric means which are similar to cyber attacks to effectively hamper adversaries’

Fig. I-4-4-1 How to Use the Electromagnetic Domain in the Defense Field



military performance, with emphasizing and enhancing electronic warfare capabilities, including electronic

attacks.

2 Each Country's Electronic Warfare Initiatives

1 The United States and Europe

The United States is committed to expanding electronic warfare training and equipment and to enhancing cooperation with its allies under an initiative to aggressively achieve its dominance in the electromagnetic domain. In addition, the Electromagnetic Spectrum Superiority Strategy announced by the U.S. Department of Defense in October 2020, indicates the recognition of importance to ensure freedom of action in the electromagnetic spectrum for the success of operations in all areas.

As an example of military operations using electronic warfare equipment, it is pointed out that the LMADIS (Light Marine Air Defense System) counter unmanned aircraft system with electronic warfare capabilities was used for leading an Iranian drone to crash over the Strait of Hormuz in July 2019.

The United States Army announced in September 2021 that a multidomain unit having space, cyber domain and electronic warfare functions was deployed in Germany. Also, the United States Air Force newly organized the 350th Spectrum Warfare Wing in June 2021 to integrate all capabilities for electronic warfare and electromagnetic spectrum into just one unit.

Many other NATO member states are also developing equipment for severe electronic warfare environments and allegedly conducting electronic warfare-oriented exercises with Russian forces' electronic warfare equipment in mind.¹ For example, France conducted the multilateral military exercise "Polaris 21" from November to December 2021 to prepare malfunctioning situations caused by enemy's cyber warfare or electronic warfare.

2 China

China has set an initiative to put cyber warfare and other electronic elements, and physical destruction and other non-electronic elements, under unified control.² Also, it has been pointed out that its electronic warfare strategy is focused on controlling, deteriorating, damaging, and deceiving enemy electronic equipment.³ Under the initiative, China conducts force-on-force exercises on a routine basis to effectively accomplish missions in complicated electromagnetic environments, improving practical capabilities. It is pointed out that China's armed forces have taken advantage of such exercises to assess electronic warfare weapon research and development achievements.⁴ The Strategic Support Force, established at the end of 2015 for improving overall military operational capabilities, is said to be responsible for such domains as electronic warfare, cyber and space.

China's Tu-154 intelligence and Y-8 electronic warfare aircraft have been seen flying around the Nansei Islands and the Sea of Japan in the vicinity of Japan. Furthermore, in August 2021, Y-9 information collection and Y-9 patrol aircraft, together with unmanned reconnaissance / attack aircraft TB-001 and unmanned reconnaissance aircraft BZK-005, flew from the East China Sea, over the gap between the Okinawa Islands and Miyakojima Island, to the Pacific Ocean. In the South China Sea, it is also reported that China deployed a radio wave interference apparatus on Mischief Reef of the Spratly Islands,⁵ and aircraft including the KJ-500 early warning aircraft were observed on Fiery Cross Reef.

3 Russia

Russia, in its Military Doctrine, places electronic warfare equipment as one of the critical equipment in modern

1 According to "All quiet on the eastern front: EW in Russia's new-generation warfare," *Jane's International Defence Review* (April 2018).
 2 According to "The Military Balance 2019," U.K. International Institute for Strategic Studies.
 3 According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2020).
 4 According to the annual report "Military and Security Developments Involving the People's Republic of China," U.S. DoD (2019).
 5 According to "An Accounting of China's Deployments to the Spratly Islands," Center for Strategic and International Studies (May 2018).

military conflicts. Moreover, according to a Russian military organ's contributed article of April 2021, Russia will ensure superiority in weapon guidance as well as force command by improving electronic warfare technology and expanding equipment, in response to the technological superiority of developed countries that have advanced information and communication technology. It is pointed out that Russia has improved its practical ability in electronic warfare in the past few years⁶ as it has reportedly conducted practice in military exercises such as "Vostok 2018" in September 2018 and "Tsentr 2019" in September 2019.

In the Russian Forces, there are reportedly five electronic warfare brigades. They mainly consist of the Land Forces⁷ and possess multiple types of electronic warfare equipment. Furthermore, Russia is developing and deploying electronic warfare (EW) systems with artificial intelligence such as EW system Bylina that controls many EW equipment in an integrated way and EW system Palantin that reportedly can interfere with radio communications and electronic reconnaissance systems within a range of 1,000km. In the vicinity of Japan, Russian electronic reconnaissance aircraft's long-range flights over the Sea of Japan have been seen.

Chapter
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⁶ According to "Russia's Electronic Warfare Capabilities to 2025," Estonian Ministry of Defense.

⁷ According to "All quiet on the eastern front: EW in Russia's new-generation warfare," Jane's International Defence Review (April 2018).

Section 5 Maritime Trends

Japan is a maritime nation surrounded by sea and depends on maritime transportation for importing energy resources. In this sense, securing maritime traffic safety is vital for the nation's existence. At the same time, ensuring the stable use of the maritime domain as infrastructure supporting international logistics is recognized as a primary concern for the international community.

Nevertheless, some countries unilaterally claim their rights or take actions based on their own assertions that are incompatible with the existing international order, leading the principle of the freedom of the high seas to be violated unduly. Attacks on ships in the Middle East and piracy seen at various locations have become a threat to maritime traffic.

1 Trends Related to the “Principle of the Freedom of the High Seas”

The UN Convention on the Law of the Sea (UNCLOS)¹ provides for the principles of freedom of navigation in the high seas and freedom of overflight. Nevertheless, in the waters and airspace in the periphery of Japan, especially the East and South China Seas, it has become increasingly common for China to unilaterally assert its rights or take actions, based on assertions which are incompatible with the existing laws and orders of the seas. This has caused situations of undue infringement upon such principles.

(1) East China Sea

Numerous cases of acts that go against the principles of freedom of navigation and freedom of overflight have been recently seen in the East China Sea. Japan is concerned about such cases since these are profoundly dangerous and could escalate the situation by unilaterally changing the status quo and may cause unintended consequences.

On November 23, 2013, for example, the Chinese Government announced that it would establish “the East China Sea Air Defense Identification Zone (ECS ADIZ),” including the Senkaku Islands as if they were a part of China's territory. China's Ministry of National Defense announced that it would require aircraft flying in the zone to follow their instructions and warned that China's armed forces would adopt “defensive emergency measures” in the event that aircraft refuse to follow the instructions. Japan is demanding China to revoke any measures that could go against the principle of freedom of overflight. The United States, the ROK,

Australia, and the European Union (EU), too, have expressed concern about China's establishment of such a zone. Increased activities by Chinese military aircraft have been confirmed in recent years in the airspace close to the various southwestern islands of Japan, including the main island of Okinawa. The expansion of these activities may be an attempt to enforce the ECS ADIZ. Moreover, fighters of the PLA flew abnormally close to aircraft of the Japanese Self-Defense Forces (SDF) and U.S. Forces, which were flying over the East China Sea.

Furthermore, in January 2013, a Chinese naval vessel directed a fire-control radar at a Maritime Self-Defense Force (MSDF) destroyer navigating on the high seas of the East China Sea on the 30. Moreover, it is believed that other Chinese naval vessel directed a fire-control radar at a helicopter mounted on an MSDF destroyer on the 19. Projecting fire-control radar is normally conducted prior to firing at a target and thus it is a dangerous act that may cause unintended consequences.

(2) South China Sea

In the South China Sea as well, there are acts to unilaterally change the status quo and efforts to create a fait accompli, based on assertions which are incompatible with the existing laws and orders of the seas, that have frequently been seen along with coercive, dangerous acts that could invite unintended consequences.

For example, China has gone ahead with land reclamation on seven features on a massive and rapid scale on the Spratly Islands since 2014. The Philippines-China arbitration award issued in July 2016 denied the

¹ The UN Convention on the Law of the Sea (UNCLOS) was adopted as a comprehensive treaty on the law and order of the seas in 1982 and entered into force in 1994 (Japan concluded it in 1996).

“historic rights” as the basis of the “nine-dash line” claimed by China, and determined the illegality of China’s activities such as land reclamation. However, China has clearly stated its intention not to comply with the award and has continued the militarization of the features by developing military facilities such as batteries and various infrastructures that can be used for military purposes, such as runways, harbors, hangars and radar facilities, and by deploying military aircraft and conducting air trainings such as taking off and landing. These activities may result in a significant improvement of Chinese operational conducting capability within the South China Sea. It has been pointed out that if China were to consider bastion operations (fortification) to enhance the survivability of new type of long-range SLBMs capable of targeting the U.S. mainland, the South China Sea would be the suitable choice.²

Moreover, in July and August 2016 after the arbitration award between the Philippines and China was rendered, an H-6K bomber of the PLA Air Force (PLAAF) conducted combat air patrols in the airspace around Scarborough Shoal, with China’s Ministry of National Defense announcing that it would conduct these patrols regularly from now on. Furthermore, it is to be believed that China conducted military exercises and launch experiments for ballistic missiles. These show the PLA has been intensifying its operations in the South China Sea.

In a dangerous act that could cause unintended consequences, PLA Navy and other ships approached and obstructed a U.S. Navy ship sailing in the South China Sea in September 2018.

Furthermore, China is using methods other than its military. For example, in some cases the China Coast Guard patrol vessels obstructed foreign fisher boats approaching the features by firing warning shots or water cannons at them, and it is pointed out that maritime militia is active.³ Furthermore, China unilaterally announced the establishment of administrative districts called “Xisha District” and “Nansha District” under Sansha City of Hainan Province in April 2020.

In response to these actions by China, critical voices are being raised by others besides claimants. For example, in July 2020 the United States issued a

statement from the U.S. Secretary of State saying that China’s maritime claims in the South China Sea are unlawful. The State Department also released a report, in January 2022, about the way that China’s unlawful claims of territorial rights and jurisdiction gravely undermine the rule of law in the oceans.

(3) Unintended Contingency Avoidance Initiatives

Despite these numerous acts that could pose risks to securing the stable use of oceans and airspace, in recent years progress has been made in efforts to avert and prevent unintended consequences in the seas and skies. First, at the Japan-China summit meeting held on May 9, 2018, Japan and China agreed to establish a “Maritime and Aerial Communication Mechanism between the Defense Authorities of Japan and China” with the aim of avoiding unintended confrontations between the naval vessels and aircraft of the SDF and PLA. The mechanism went into operation in June of the same year.

As for multi-national initiatives, in April 2014, navies of participating countries of the Western Pacific Naval Symposium (WPNS), including Japan, the United States, and China, adopted the Code for Unplanned Encounters at Sea (CUES).⁴ CUES sets forth a code of conduct such as procedures and communication method to ensure safety for unexpected encounters by vessels or aircraft of the navies of these countries. In November 2014, the United States and China agreed on measures pertaining to mutual notification of military activities, together with rules of behavior to avert collisions in waters and airspace in accordance with CUES and other frameworks. In September 2015, the two countries announced an agreement concerning an additional annex stipulating rules of behavior to avert air encounters. Between ASEAN and China, official discussions have been held for the establishment of the Code of the Conduct of Parties in the South China Sea (COC).

It is strongly hoped that these initiatives designed to avert and prevent unintended consequences in the seas and skies will supplement the existing international order and that the countries concerned, including China, refrain from unilateral actions that add to tension and

² According to the annual report “Military and Security Developments Involving the People’s Republic of China,” U.S. DoD (2021).

³ For example, the Philippines’ Department of National Defense expressed deep concern over the presence of 220 Chinese maritime militia vessels around Whitsun Reef, and demanded immediate withdrawal in March 2021.

⁴ This code is not legally binding and does not supersede the annexes of the Convention on International Civil Aviation and other international treaties.

act on the basis of the principle of the rule of law.

2 National Maritime Security Initiatives

(1) Maritime Security in the Middle East

The Middle East has seen intermittent attacks on ships in recent years.

For example, in the Strait of Hormuz and its vicinity, attacks on private sector oil tankers have been seen since May 2019. As tensions including those over U.S.-Iran relations have increased in the Middle East, U.S. and French initiatives have been conducted to secure safe navigation.

 See Chapter 3, Section 10-2 (Situation in the Gulf Region)

(2) Piracy

Piracy seen at various locations has become a threat to maritime traffic. The number of piracy / armed robbery incidents (hereinafter referred to as “piracy incidents”)⁵ is declining after the peak of 445 incidents in 2010. (There were 132 incidents in 2021.)

The decline has depended heavily on the fall in the number of piracy incidents in waters off the coast of Somalia and in the Gulf of Aden.

The number of piracy incidents in waters off the coast of Somalia and in the Gulf of Aden rose rapidly from 2008 to 2011 with 237 incidents, accounting for more than half of the global total and attracting great international concern as a threat to safe navigation. In the recent years, however, the number of piracy incidents in waters off the coast of Somalia and in the Gulf of Aden has remained low as a result of various initiatives taken by the international community including Japan. (There was one incident in 2021. Refer to Part III, Chapter 3, Section 2-2 (Counter-Piracy Operations) for Japan’s initiatives.)

The international counter-piracy initiatives in waters off the coast of Somalia and in the Gulf of Aden include counter-piracy operations by the Combined Task Force 151 (CTF151), a multinational force that was created by the U.S. Force-led Combined Maritime Force (CMF)⁶

based in Bahrain. So far, the United States, Australia, the United Kingdom, Turkey, the ROK, Pakistan and other countries have participated in the CTF151, conducting zone defense operations to counter piracy. The EU for its part has conducted Operation Atalanta to counter piracy since December 2008. In the operation, naval vessels and aircraft dispatched by EU member countries escort ships and monitor the waters off the coast of Somalia. It has been decided that the operation will continue until the end of 2022.

In addition, some countries have conducted their exclusive operations outside the abovementioned frameworks. Since December 2008, for example, China has deployed naval vessels for counter-piracy operations in waters off the coast of Somalia and in the Gulf of Aden.

While the number of piracy incidents in waters off the coast of Somalia and in the Gulf of Aden has remained low thanks primarily to such international initiatives, Somalia’s unstable security and poverty as fundamental factors behind piracy have not been resolved.

Meanwhile, in Africa, piracy incidents occurred in the Gulf of Guinea (the number of incidents was 35 in 2021). The international community has continued counter-piracy initiatives in this region.

The number of piracy incidents in Southeast Asian waters came to 56 in 2021. Traditionally, maritime armed robbery incidents, including the theft of cash, crewmembers’ belongings, ship equipment and other items, have accounted for most of piracy incidents in the waters. In recent years, however, they included grave incidents in which crewmembers were kidnapped for ransom purposes in the Sulu Sea and the Celebes Sea off the Philippines.

⁵ The numbers of piracy incidents cited in the main text are based on a report by the International Maritime Bureau of the International Chamber of Commerce.

⁶ The CMF is a multinational force, which operates to promote maritime security, stability, and prosperity, under the U.S. Central Command. Forces from 34 countries participate in the CMF, and the Commander of the U.S. Fifth Fleet concurrently serves as the CMF Commander. The CMF is comprised of four combined task forces: the Combined Task Group 150 which is tasked with maritime security operations in the Indian Ocean and the Gulf of Oman, the Combined Task Group 151 which is tasked with counter-piracy operations, the Combined Task Group 152 which is tasked with maritime security operations in the Persian Gulf, and the Combined Task Group 153 (established in April 2022) which is tasked with maritime security and capacity building operations from the Red Sea to the Gulf of Aden. The SDF deploy units to the Combined Task Group 151 (CTF151). Furthermore, in June 2021, the CMF reorganized the Combined Task Force into the Combined Task Group for the purpose of efficient unit operations.

3 Trends in the Arctic Ocean

The area north of latitude 66 degrees 33 minutes is called the Arctic Region. The Arctic Region includes Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. These eight are called Arctic countries. In 1996, the Arctic countries established the Arctic Council to promote cooperation in their common challenges, including sustainable development and environmental protection in the Arctic Region.

In recent years, moves towards the utilization of trans-Arctic navigation routes and the development of natural resources in the Arctic Ocean have gained momentum in line with a decline in sea ice. From the perspective of security, the Arctic Ocean has traditionally been used for the deployment of strategic nuclear forces and as their transit route. With the decrease in sea ice in recent years, ships have been able to navigate for a longer period of time and more extensively than before. It is therefore considered that the region could be used for deploying maritime forces or maneuvering military forces in the future. In this situation, moves to deploy new military capabilities in the ocean are seen.

In the “Russian Federation’s National Security Strategy”, revised in December 2015, and in “Strategy for Developing the Russian Arctic Zone and Ensuring National Security through 2035”, revised in October 2020, Russia continues to maintain that it would secure its interests in resource development and use of sea routes.

Russia has been developing natural gas on the Yamal Peninsula and elsewhere. In 2018, liquefied natural gas produced on the peninsula was transported to China for the first time via an Arctic Ocean route. As for military arrangements, in January 2021, Russia upgraded the Northern Fleet to a military-administered district citing that it will enable the enhancement of joint operations in the Arctic. Moreover, 13 airfield construction plans are in progress, and radar networks as well as anti-air/anti-ship missiles are being deployed in the Arctic region. As for military operations, the Northern Fleet has annually

conducted a long-distance navigation to the Novo Sibirski Islands since 2012. Russia has intensified other Arctic military operations including SSBN submarines’ strategic nuclear deterrence patrols and long-range bombers’ patrol flights. The commander-in-chief of the Russian Navy reported to President Putin in March 2021 that three SSBN successfully surfaced through the polar ice simultaneously during the Arctic exercise “Umka-2021.”

In its Arctic Strategy published in June 2019, the U.S. DoD expressed concern against actions of China and Russia in the Arctic region⁷ and a desire for the Arctic to become a secure and stable region where U.S. national interests are safeguarded, the U.S. homeland is protected, and nations work cooperatively to address challenges. The U.S. Marine forces were deployed in Norway on a rotation basis every year for a period of six months for training since 2017, but this rotation deployment has been changed to a form of dispatching forces with a larger number of personnel for a shorter period of time in conjunction with training since October 2020. In October 2018, the U.S. sent an aircraft carrier to the Arctic Region for the first time in 27 years for air drills in the Norwegian Sea ahead of the NATO exercise “Trident Juncture 2018.” In May 2020, United States and United Kingdom vessels took part in activities in the Barents Sea for the first time since the end of the Cold War. Moreover, U.S. B-1 bomber made their first landing inside the Arctic Circle in March 2021.

Aside from coastal states in the Arctic Ocean, 13 countries including Japan, China, the ROK, the United Kingdom, Germany and France, have observer status in the Arctic Council. Notably, China has shown active involvement in the Arctic Ocean, deploying the polar research vessel Xue Long to the Arctic Ocean for 12 times since 1999.⁸ In January 2018, they published a white paper titled “China’s Arctic Policy” in which they claimed to be one of the geographically closest states to the Arctic Circle with rights pertaining to

7 As for Russia, the U.S. DoD pointed out in its Arctic Strategy that Russia is strengthening its presence above the Arctic Circle by deploying Arctic units and establishing new military bases. Moreover, Russia has reportedly threatened to use force against vessels that fail to abide by Russian regulations. The DoD pointed out that Russia could utilize its military capabilities in an effort to deny access to disputed Arctic waters or resources. As for China, the DoD pointed out in its strategy that its operations of icebreaking vessels and civilian research activities could support a future Chinese military presence in the Arctic Ocean including deployment of submarines to the region, and also pointed out that it was attempting to gain a role in the Arctic in ways that may undermine international rules and norms, and there is a risk that its predatory economic behavior globally may be repeated in the Arctic.

8 In 2012, Xue Long became the first polar research vessel to sail across the Arctic Ocean. In 2013, the cargo freighter Yong Sheng became the first Chinese commercial ship to cross the Arctic Ocean. Canadian scientists took part in Xue Long’s voyage to the Arctic Ocean in 2017, and they succeeded for the first time in trial navigation of the Arctic Northwest Passage (along the north coast of Canada). Its second polar research vessel Xue Long 2 completed its first Arctic Sea navigation in September 2020. Furthermore, China is accelerating research and construction of a heavy icebreaker.

the development of resources. They also announced their intention to build a “Polar Silk Road.” China also specified it will construct this “Polar Silk Road” in its 14th Five Year Plan adopted in March 2021, and accelerates its participation to international ocean governance. The movements of the Chinese Navy in the Arctic Region have gathered attention as, for example, in September 2015, five Chinese naval vessels transited in the Bering Sea between the Arctic Ocean and the Pacific, as well as in the U.S. territorial waters near the Aleutian Islands.

Apart from that, in October 2021, the EU unveiled their new Joint Communication about the Arctic Region that stipulated specialized items for foreign affairs and security for the first time.⁹

⁹ The new joint communication pointed out that Russia is gradually building up its military presence in the Arctic Region, and various actors including China are enhancing their interest for the region in different fields.

Section 6

Transfer and Proliferation of Weapons of Mass Destruction (WMDs)

The transfer and proliferation of WMDs, such as nuclear, biological and chemical (NBC) weapons, and ballistic missiles that deliver such weapons, have been recognized as a significant threat since the end of the

Cold War. In particular, there still remain strong concerns that non-state actors, including terrorists, against which traditional deterrence works less effectively, could acquire and use WMDs.

1 Nuclear Weapons

Since in the cold war between the United States and Soviet Union, the risk of a full-scale nuclear war between them were widely recognized especially after the Cuban Missile Crisis, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) went into effect in 1970. The treaty prohibited countries, other than those that exploded a nuclear weapon or other nuclear explosive device in or before 1966 (the United States, the then Soviet Union, the United Kingdom, as well as France and China, which acceded to the NPT in 1992), from having nuclear weapons, and provided that arms control and disarmament of nuclear forces would be pursued through two-way negotiations.

As of January 2022, the NPT had been signed by 191 countries and regions. While some countries that had previously possessed nuclear weapons became signatories to this treaty as non-nuclear weapon states by abandoning these weapons, India, Israel, and Pakistan still refuse to accede to this treaty as non-nuclear weapon states. Meanwhile, North Korea has conducted six nuclear tests and declared the development and possession of nuclear weapons.

The U.S.-Russia New Strategic Arms Reduction Treaty was set to expire in February 2021, but ahead of this both countries agreed to extend the treaty for five years.

The United States has indicated its hope to pursue

Fig. I-4-6-1 Number of Nuclear Warheads Arsenals and Their Major Means of Delivery by Country

		United States		Russia		United Kingdom		France		China	
Missiles	ICBM (Intercontinental Ballistic Missiles)	400	400	339	46	—	—	—	—	106	24
		Minuteman III	SS-18	SS-19	SS-25					SS-27 (single-warhead)	
	IRBM MRBM	—	—	—	—	—	—	—	—	278	10
										DF-26	110
										DF-21 (CSS-5)	134
										DF-17 (CSS-22)	24
	SLBM (Submarine-Launched Ballistic Missiles)	280	280	176	16	48	48	64	64	72	72
		Trident D-5	SS-N-18	SS-N-23	SS-N-32	Trident D-5	M-51			JL-2 (CSS-NX-14)	
	Submarines equipped with nuclear ballistic missiles		14		11		4		4		6
	Aircraft	66	20	76	60	—	40	40	40	104	100
		B-2	B-52	Tu-95 (Bear)	Tu-160 (Blackjack)		Rafale			H-6K	H-6N
											4
	Number of warheads	Approx. 3,800		Approx. 4,495 (including Approx. 1,910 tactical nuclear warheads)		180-225		290		Approx. 350	

Notes: 1. Data is based on "The Military Balance 2022," the SIPRI Yearbook 2021, etc.
 2. In September 2021, the United States released the following figures based on the new Strategic Arms Reduction Treaty between the United States and Russia as of September 1, 2021: the number of deployed strategic nuclear warheads for the United States was 1,389 and the delivery vehicles involved 665 missiles/aircraft; the number of deployed strategic nuclear warheads for Russia was 1,458 and the delivery vehicles involved 527 missiles/aircraft. However, according to the SIPRI Yearbook 2021, as of January 2021, the number of deployed U.S. nuclear warheads was approx. 1,800 (including 100 tactical nuclear warheads) and that of Russian ones was approx. 1,625.
 3. The Integrated Review by the UK in March 2021 stipulated that the UK will move to an overall nuclear weapon stockpile of no more than 260 warheads.
 4. According to the SIPRI Yearbook 2021, India possesses 156 nuclear warheads, Pakistan 165, Israel 90, and North Korea 40-50.

an arms control framework including China. However, China, which is deemed to have increased its inventory of nuclear warheads as well as developed and deployed their means of delivery¹ and continued to enhance the capability of its nuclear force, has reiterated that it has no intention to participate in any U.S.-Russian arms control framework. In the future, it may be

important to launch some international arms control and disarmament initiative including not only the United States and Russia but also China and others. Future trends regarding nuclear arms control and disarmament should be closely watched.

 See Fig. I-4-6-1 (Number of Nuclear Warheads Arsenals and Their Major Means of Delivery by Country)

2 Biological and Chemical Weapons

Biological and chemical weapons are easy to manufacture at relatively low cost and are easy to disguise as most materials, equipment, and technology needed to manufacture these weapons can be used for both military and civilian purposes. For this reason, development and acquisition by states or non-state actors such as terrorists that are seeking asymmetric means of attack² are especially concerning matters.

Biological weapons have the following characteristics: (1) manufacturing is easy and inexpensive; (2) there is usually an incubation period of a few days between exposure and onset; (3) their use is hard to detect; (4) even the threat of use can create great psychological effects; and (5) they can cause mass casualties and injuries depending on the circumstances of use and the type of weapon. And it has been pointed out that advancements in life science could be misused or

exploited for the development of biological weapons.

North Korea is an example of an actor that is still presumed to possess these chemical weapons and has not entered into the Chemical Weapons Convention (CWC). The threat of terrorist attacks by weapons of mass destruction in urban areas also became clear with incidents such as the sarin attack in the Tokyo subway in 1995. In recent years, it has been pointed out that Syria's Assad administration used chemical weapons³, and it is alleged that the "Novichok" agent, a substance developed by Russia, had been used for the attempted poisoning of a Russian opposition leader in August 2020.

The U.S. DoD, in a report published in 2021, voiced its concern about China's possible nonfulfillment of the obligations specified in the Biological Weapons Convention (BWC) and the CWC.⁴

3 Ballistic Missiles and Other Missiles

Ballistic missiles are propelled by rockets for parabolic flights and are capable of attacking distant targets. They can be used as a means of delivering WMDs, such as NBC weapons. As they fall at a steep angle and high speed, highly accurate systems are required for intercepting them effectively. Moreover, technologies related to ballistic missiles have been changing and developing rapidly in recent years. For example, ballistic missiles that can fly at lower altitudes than conventional ballistic missiles with irregular trajectories by controlling wings emerged. These missiles bring new challenges to conventional missile defense systems as

Fig. I-4-6-2 Classification of Ballistic Missiles

Description	Range
Short Range Ballistic Missile, SRBM	Under approx. 1,000 km or less
Medium Range Ballistic Missile, MRBM	Approx. 1,000 to under approx. 3,000 km
Intermediate Range Ballistic Missile, IRBM	Approx. 3,000 to under approx. 5,500 km
Intercontinental Ballistic Missile, ICBM	Approx. 5,500 km or more

* Ballistic missiles launched from submarines are collectively referred to as submarine-launched ballistic missiles (SLBMs), while a ballistic missile that has a precision guidance system on its warhead necessary to attack aircraft carriers and other vessels is called an anti-ship ballistic missile (ASBM).

¹ See Chapter 3, Section 2-2 for China's ballistic missile development

² They refer to means of attack to strike an adversary's vulnerable points and are not conventional means. They include WMDs, ballistic missiles, terrorist attacks, and cyber attacks.

³ See Part I, Chapter 3, Section 10-4 for general information about the Syria situation.

⁴ According to the "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2021," U.S. DoD (November 2021).

they attempt to breach missile defense networks by making their early detection more difficult.

 See Fig. I-4-6-2 (Classification of Ballistic Missiles)

The deployment of ballistic missiles in areas with continuous armed conflicts is dangerous because it can intensify existing tensions and make the area unstable. Furthermore, ballistic missiles are used as a means of attacking from a distance or threatening another country that has superior conventional forces.

In recent years, along with the threat of ballistic missiles, analysts have pointed to the threat of cruise

missiles as a weapon which is comparatively easy for terrorists and other non-state actors to acquire and has the potential for proliferation. Because cruise missiles are cheaper to produce compared to ballistic missiles and are easy to maintain and train with, many countries either produce or modify cruise missiles. Moreover, because of cruise missiles' relatively higher target accuracy, their difficulty to be detected while flying, and their relatively smaller size compared to ballistic missiles, they can be concealed on a ship to secretly approach a target, and they can present a serious threat if they carry WMDs with their warheads.

4 Growing Concerns about Transfer and Proliferation of WMDs and Other Technologies

Even weapons that were purchased or developed for self-defense purposes could easily be exported or transferred once domestic manufacturing becomes successful. For example, certain states that do not heed political risks have transferred WMDs and related technologies to other states that cannot afford to invest resources in conventional forces and attempt to offset this with WMDs. Some of these states that seek WMDs do not hesitate to put their land and people at risk, and furthermore, due to their weak governance, terrorist organizations are active in their territories. Therefore, it is conceivable that in general, the possibility of actual use of WMDs would increase.

Moreover, since it is uncertain whether such states can effectively manage the related technology and materials, there is a concern that chemical or nuclear substances will be transferred or smuggled out from these states with high likelihood. For example, there is a danger that even terrorists who do not possess related technologies would use a dirty bomb to release radioactive materials for pollution as a means of terrorist attack so long as they gain access to such materials. States across the world share concerns regarding the acquisition and use of WMDs by terrorists and other nonstate actors.

The proliferation of WMDs and other related technologies has been noted in numerous instances. For example, in February 2004, it came to light that nuclear-related technologies, mainly uranium enrichment

technology, had been transferred to North Korea, Iran, and Libya by Dr. A.Q. Khan and other scientists in Pakistan. It has also been suggested that North Korea supported Syria's secret nuclear activities.⁵

Furthermore, there has been significant transfer and proliferation of ballistic missiles that serve as means of weapon delivery. The former Soviet Union and other countries exported Scud-B to many countries and regions, including Iraq, North Korea, and Afghanistan. China and North Korea also exported DF-3 (CSS-2) and Scud missiles, respectively. As a result, a considerable number of countries and other actors now possess ballistic missiles. For example, in recent years, the opposition insurgent group Houthis, based in Northern Yemen, sporadically attacks Saudi Arabia and the United Arab Emirates (UAE) with ballistic missiles and other weapons. It is pointed out that the group receives their weapons from Iran.⁶

It is pointed out that North Korea continues to be an outward source of proliferation of technologies, conventional weapons and items for supply chains related to WMDs. For example, it has been pointed out that the Transporter-Erector-Launcher (TEL) for two types of short-range ballistic missile test launched in 2019 were in sand or tan color for marketing purposes.⁷ It has also been pointed out that North Korea cooperates with Iran to develop long range missiles.⁸

North Korea made rapid strides in the development

⁵ According to "Worldwide Threat Assessment," U.S. Director of National Intelligence (January 2014).

⁶ See Chapter 2, Section 10-5 for situations related to the Houthi movement.

⁷ According to "the final report of the Panel of Experts of the UN Security Council Democratic People's Republic of Korea (DPRK) Sanctions Committee" (April 2020).

⁸ According to "the final report of the Panel of Experts of the UN Security Council Democratic People's Republic of Korea (DPRK) Sanctions Committee" (March 2021).

of its ballistic missiles with only a few test launches in the 1980s and 1990s. It is believed that an underlying factor behind this fact was North Korea's imports of various materials and technologies from outside of North Korea. It is also noted that North Korea transfers ballistic missile airframes and related technologies and accelerates the further development of missiles using funds procured through such transfer.⁹

The pressure from the international society's decisive attitude to the nations involved in transferring and proliferation of WMDs etc. has resulted in some nations to accept inspections by international organizations. Meanwhile, it is pointed out that, in recent years, states in which transferring is a concern have sustained their external transfer while skillfully averting international monitoring by falsifying documentation and diversifying transport routes to illicitly export WMDs. Additionally, intangible technology transfer has arisen as a cause for concern. Namely, those states have obtained advanced technologies which could be adapted for the development and manufacturing of WMDs and other technologies via their nationals-researchers and students who have been dispatched to leading companies and academic institutions in developed countries.

⁹ According to the report titled "Military and Security Developments Involving the Democratic People's Republic of Korea," which was submitted by U.S. DoD to Congress in May 2018, etc.

Section 7

Impact of Climate Change on the Security Environment and the Military

In a report published in August 2021, the Intergovernmental Panel on Climate Change (IPCC) assessed that it is unequivocal that human influence has warmed the atmosphere, ocean and land, and widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.

It is believed that the impacts of climate change are not regionally uniform and affecting not only meteorology and environment but also a multitude of fields including society and economy. In recent years, the world, which has been experiencing extreme weather events such as unprecedented heat waves, heavy rains, droughts, and tropical cyclones, has been recognizing various effects on national security caused by climate change.

For example, water, food, and land shortages as a result of combined influences from climate change are believed to contribute to and exacerbate conflicts over limited land and resources, as well as induce large-scale migration, and social and political tensions and conflicts.

Moreover, widespread impact of climate change can burden each country's response capability and particularly shake the stability of vulnerable countries with political and economic issues. Consequently, the need for international assistance including military operations on such destabilized countries is expected to rise.

Additionally, it was pointed out that the tensions among countries may be heightened over regulations of greenhouse gas emissions and use of geoengineering (climate engineering).

Furthermore, as melting of sea ice in the Arctic Sea can increase opportunities for use as a sea route and lead to easier access to undersea resources, coastal nations, trying to ensure ocean interests, have begun to embark on seafloor investigations to claim an extension of continental shelves and enhance military posture in the Arctic areas.

 See Section 5-3 (Trends in the Arctic Ocean)

And it was pointed out that attention should be put on the impact of glacier melting in the Tibetan Plateau, which is the source of many big rivers in Asia, including the Yellow River, Yangtze River, Mekong River, Indus River, and Brahmaputra River.

Regarding the direct impact of climate change on

the military, increasingly extreme weather is believed to increase large-scale disasters and spread infections. Accordingly, each country's military is expected to have more opportunities to be dispatched for such duties as rescue operations, humanitarian and reconstruction operations, security duties, and medical assistances, and operations under such harsh environments can impact the physical conditions of military personnel. In addition, rising temperatures, extreme weather, and rising sea levels are thought to increase the burden on military equipment, bases, and training facilities. Furthermore, it has been pointed out that there should also be an impact on military operations. In April 2021, it is indicated that climate change and extreme weather have significant military implications for NATO on the tactical, operational and military-strategic level. For example, changes in maritime flow patterns will have implications for maritime reconnaissance and surveillance and submarine warfare. For land operations, flooding, snow/ice or storms could block operational supply routes and it poses significant challenges to military logistics.

In addition, it has been pointed out that there is a possibility of growing demand for the military to take further environmental measures, such as mitigation of greenhouse gas emissions.

Countries have been striving to take initiatives as well as stating that they will assess such impacts of climate change on their security environment and military, and consider their responses in their policy documents.

The United States, whose military is noted to emit comparable amounts of greenhouse gases to a nation with their operations worldwide, is putting climate crisis at the center of its foreign policy and national security and is accelerating its response against climate change.

In May 2021, Dr. Hicks, Deputy Secretary of Defense pointed out important matters to combat the effects of climate change, that is, 1) to incorporate climate consideration into resource allocation and operational decision making process; 2) to train, test, and equip a climate ready force; 3) to secure a supply chain that can support military requirements; and 4) to ensure resilience of military installations. The U.S. Department of Defense (DoD) and the U.S. Forces has been working on initiatives.

The DoD published its first report focused on the strategic risks of climate change, the Department of Defense Climate Risk Analysis, in October 2021. This report explains how to integrate the considerations of climate change into its strategies, plans, major documents including budgets, and engagements with allies or partners. It mentions the National Defense Strategy (NDS) and others as documents into which climate consideration will be incorporated.

The U.S. Forces conducted its first climate and environmental security tabletop exercise set in East Africa in March 2021. In this exercise, it is hypothesized that climate change had gradually disrupted natural systems, weakening region-states, and increasing the risk of climate-driven extreme events, based upon future climate, economic, and population forecasts. In this scenario, high-end conventional combat capabilities were of little use, while the value of the exercise to understand the links between climate change and global security was emphasized.

The DoD is developing a sustainability plan to meet net zero emissions by 2050, and will set a path for enhancing sustainable procurement on supply chains. In particular, the DoD is, together with some companies, considering ways to ensure a healthy supply chain for lithium ion batteries, which are essential to military systems and future capabilities like directed energy weapons and hybrid electric tactical vehicles, while the supply chain is dominated by China.

Furthermore, the DoD has been assessing the vulnerability of U.S. military installations and operations worldwide to climate change. In April 2021, a report¹ was published about the impact of climate change on the DoD installations at home and abroad. Using the DoD Climate Assessment Tool,² exposure to climate change hazards to 1391 DoD installations at home and abroad are assessed, and each department of the Army, Navy, and Air Forces are also evaluated.

In addition, the DoD included US\$617 million in its FY 2022 budget request for measures to deal with climate crisis such as strengthening resilience of installations, improving energy efficiency of equipment and facilities, and investing in science and technology.



The Leaders Summit on Climate hosted by the United States [NATO]

It is seen that the DoD will continue to secure financial resources to tackle and complete various initiatives to mitigate and adapt to climate change.

The United Kingdom, which was the chair country for the 26th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) held from October to November 2021, is also showing an increasingly positive attitude. According to a policy document³ published by the Ministry of Defence (MoD) in March 2021, UK government will make tackling climate change and biodiversity loss its number one international priority in 2021 and beyond, and sets three linked objectives which are adaptation and resilience, sustainability and net zero, and global leadership as its “Defence’s strategic ambition 2050.” To achieve these ambitions, the MoD divides its approach until 2050 into three phases. In the first phase for 2021 to 2025, it will set the foundations, which include identifying ways to reduce emissions in the supply chain and building a comprehensive baseline and database to allow decisions on a detailed plan for all themes dealt during other phases. A number of concrete plans for this initial phase is introduced.

Furthermore, International cooperation is also developing.

In April 2021, the Climate Security Session was held at the Leaders Summit on Climate hosted by the United States. The session, moderated by U.S. Secretary of Defense Austin, was attended by Minister of Defense Kishi, the U.S. Director of National Intelligence, the U.S. ambassador to the UN, Secretary General of the North Atlantic Treaty Organization (NATO),

1 “DoD Installation Exposure to Climate Change at Home and Abroad,” the U.S. Department of Defense

2 A web-based collection of scientific climate data to support research, analysis, and decision making about exposure to historical extreme weather and reasonably foreseeable climate effects. It enables to deliver consistent exposure assessments and identify regions or installations for additional climate-related studies. It is also used to create the Department of Defense Climate Risk Analysis.

3 “Climate Change and Sustainability Strategic Approach,” the United Kingdom Ministry of Defence

defense ministers from Iraq, Kenya, Spain, and the United Kingdom, and the minister of finance of the Philippines, to discuss global security issues caused by climate change and their countermeasures. During the discussions, defense officials noted that their ministries are increasingly called upon to respond to disasters thus elevating the need for enhanced disaster preparedness and response. In addition, they described the benefits of collaboration between defense ministers on shared climate crisis.

NATO has held up its ‘Green Defense’ framework seeking to make NATO operationally effective through changes in the use of energy, while also meeting the environmental objectives of using less resources and enhancing sustainability. NATO stated in the communique of its summit meeting held in June 2021 that it aims to become the leading international organization when it comes to understanding and adapting to the

impact of climate change on security. Moreover, an action plan set out a framework for delivering NATO’s agenda on climate change and security was adopted during the meeting. It is stated that, as part of the action plan, NATO will 1) increase awareness and conduct impact assessment for it; 2) adapt to climate change; 3) contribute to the mitigation of climate change; and 4) strengthen exchanges with partner countries, as well as with international and regional organizations including the EU, the UN and others. NATO will submit the Climate Change and Security Progress Report at the 2022 Summit.

It is strictly required for the international society to unify their efforts against climate change, which is in progress worldwide and is even referred to as a threat multiplier. It is also needed to pay close attention to future efforts against climate change with great interest.

Part **II**

Basic Concepts of Japan's Security and Defense

Chapter 1

Basic Concepts of Japan's Security and Defense

Chapter 2

Japan's Security and Defense Policy

Chapter 3

**Organizations Responsible for Japan's Security
and Defense**

Chapter 4

Build-up of Defense Capability, etc.

Chapter 5

Framework for Activities of the SDF and Others

The independent state of a nation must be protected in order for it to determine its own direction in politics, economy, and society, as well as maintaining its culture, tradition, and sense of values. In addition, peace and security are essential for the people to live with a sense of safety and for Japan to continue to prosper. However, peace, safety, and independence cannot be secured by simply wishing for them. The essence of national security can be found in creating an international environment that is stable and predictable, while preventing the emergence of threats before they occur, through diplomacy.

Nevertheless, the reality of the current international community suggests that it is not necessarily possible to prevent invasions from the outside by employing only nonmilitary means such as diplomatic efforts, and in the event that the nation were to be invaded it would not be able to remove such a threat. Defense capabilities are the nation's ultimate guarantee of security, expressing its will and capacity to eliminate foreign invasions, and they cannot be replaced by any other means.

For this reason, Japan is striving to develop appropriate defense capabilities to protect the life and properties of its nationals and to defend the territorial land, sea, and airspace of Japan. At the same time, it is strengthening the Japan-U.S. Alliance¹ with the United States, which shares basic values and interests with Japan. This underlines that the peace and security of Japan is ensured through developing seamless defense



Prime Minister Kishida conducting a review

measures by coupling Japan's own defense capabilities with the Japan-U.S. Security Arrangements.

Moreover, from the perspective of creating the ideal security environment for Japan and preventing the emergence of threats, the importance of the role played by defense capabilities is increasing in cooperative efforts as a member of the Indo-Pacific region and the international community.

Upon recognizing the role of defense capabilities, Japan aims to ensure national security, as well as bring peace and safety to the Indo-Pacific region, and eventually to the entire world, by exerting its utmost efforts in a variety of fields, including diplomacy and economics.

¹ In general, this refers to the relationship, based on the Japan-U.S. Security Arrangements, whereby both nations, as countries sharing fundamental values and interests, coordinate and cooperate closely in a range of areas in security, politics, and economics.

Section 2

Constitution and the Basis of Defense Policy

1 Constitution and the Right of Self-Defense

After the end of World War II, Japan was determined not to repeat the ravages of war. Since then, it has worked hard to build a peace-loving nation. The Japanese people desire lasting peace, and the principle of pacifism is enshrined in the Constitution, Article 9, which prescribes the renunciation of war, the prohibition of war potential, and the denial of the right of belligerency of the state. Of course, since Japan is an independent nation, these provisions do not deny Japan's inherent

right of self-defense as a sovereign state. Thus, the Japanese Government interprets it as a constitutional right to possess the minimum armed forces needed to exercise that right.

Therefore, Japan, under the Constitution, maintains the Self-Defense Forces (SDF) as an armed organization, holding its exclusively defense-oriented policy as its basic strategy of defense, and continues to keep it equipped and ready for operations.

Chapter

1

Basic Concepts of Japan's Security and Defense

2 The Government's View on Article 9 of the Constitution

1 Permitted Self-Defense Capability

Under the Constitution, Japan is permitted to possess the minimum required self-defense capability. The specific limit is subject to change according to the prevailing international situation, the level of military technologies, and various other factors, and it is discussed and decided through annual budget and other deliberations by the Diet on behalf of the people. Whether its capability constitutes a "war potential" that Japan is prohibited to possess by Article 9, Paragraph 2 of the Constitution must be considered within the context of Japan's overall military strength. Therefore, whether the SDF should be allowed to possess certain armaments depends on whether such a possession would cause its total military strength to exceed the constitutional limit.

The possession of so-called "offensive weapons," which are designed to be used only for the mass destruction of another country, is not permissible under any circumstance as it would directly exceed the definition of the minimum necessary level for self-defense. For example, the SDF is not allowed to possess intercontinental ballistic missiles (ICBM), long-range strategic bombers, or attack aircraft carriers.

2 Measures for Self-Defense Permitted under Article 9 of the Constitution

It has been concluded in the Cabinet's decision made on July 1, 2014, "Development of Seamless Security Legislation to Ensure Japan's Survival and Protect its People," that "the use of force" should be interpreted to be permitted under the Constitution as measures for self-defense when the following "Three New Conditions" are met:

- (1) When an armed attack against Japan has occurred, or when an armed attack against a foreign country that is in a close relationship with Japan occurs and as a result threatens Japan's survival and poses a clear danger to fundamentally overturn people's right to life, liberty and pursuit of happiness;
- (2) When there is no appropriate means available to repel the attack and ensure Japan's survival and protect its people;
- (3) Use of force to the minimum extent necessary.

See Reference 1 ("Development of Seamless Security Legislation to Ensure Japan's Survival and Protect its People" (National Security Council decision and Cabinet decision on July 1, 2014))

3 Geographic Boundaries within Which the Right of Self-Defense May Be Exercised

The use of the minimum necessary force to defend Japan under the right of self-defense is not necessarily confined to the geographic boundaries of Japanese territory, territorial waters, and airspace. However, it is difficult to give a general definition of the actual extent to which it may be used, as this would vary with the situation.

Nevertheless, the Government interprets that, as a general rule, the Constitution does not permit armed troops to be dispatched to the land, sea, or airspace of other countries with the aim of using force; such overseas deployment of troops would exceed the definition of the minimum necessary level for self-defense.

4 Right of Belligerency

Article 9, Paragraph 2 of the Constitution prescribes that “the right of belligerency of the state will not be recognized.” However, the “right of belligerency” does not mean the right to engage in battle; rather, it is a general term for various rights that a belligerent nation has under international law, including the authority to inflict casualties and damage upon the enemy’s military force and to occupy enemy territory.

On the other hand, Japan may of course use the minimum level of force necessary to defend itself. For example, if Japan inflicts casualties and damage upon the enemy’s military force in exercising its right of self-defense, this is conceptually distinguished from the exercise of the right of belligerency, even though those actions do not appear to be different. Occupation of enemy territory, however, is not permissible because it would exceed the minimum necessary level for self-defense.

3 Basic Policy

Under the Constitution, Japan has efficiently built a highly effective and joint defense force in line with the basic principles of maintaining an exclusively defense-oriented policy and not becoming a military power that poses a threat to other countries, while firmly maintaining the Japan-U.S. Security Arrangements, adhering to the principle of civilian control of the military, and observing the Three Non-Nuclear Principles.

1 Exclusively Defense-Oriented Policy

The exclusively defense-oriented policy means that defensive force is used only in the event of an attack, that the extent of the use of defensive force is kept to the minimum necessary for self-defense, and that the defense capabilities to be possessed and maintained by Japan are limited to the minimum necessary for self-defense. The policy including these matters refers to the posture of a passive defense strategy in accordance with the spirit of the Constitution.

2 Not Becoming a Military Power

There is no established definition for the concept of a military power. For Japan, however, not becoming a military power that could threaten other countries means that Japan will not possess and maintain a military capability strong enough to pose a threat to other countries, beyond the minimum necessary for self-defense.

3 Non-Nuclear Principles

The Three Non-Nuclear Principles refers to those of not possessing nuclear weapons, not producing them, and not allowing them to be brought into Japan.

Japan adheres to the Three Non-Nuclear Principles as a fixed line of national policy. Japan is also prohibited from manufacturing and possessing nuclear weapons under the Atomic Energy Basic Law.¹ In addition, Japan ratified the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and as a nonnuclear weapons state, has

¹ Article 2 of the Atomic Energy Basic Law states that “utilization of atomic energy shall be limited to peaceful purposes, aimed at ensuring safety and performed independently under democratic management.”

an obligation not to manufacture and acquire nuclear weapons.²

4 Securing Civilian Control

Civilian control refers to the priority of politics to the military in a democratic state or democratic political control of military strength. Japan has, by giving serious reflection to the regrettable state of affairs that happened until the end of World War II, adopted the following strict civilian control system that is entirely different from the one under the former Constitution.³ Civilian control aims to ensure that the SDF is maintained and operated in accordance with the will of the people.

The Diet, which represents Japanese nationals, makes legislative and budgetary decisions on such matters as the allotted number of the SDF personnel and main organizations of the Ministry of Defense (MOD)/SDF. It also issues approval for defense operations of the SDF. The function of national defense entirely falls under the executive power of the Cabinet as a general administrative function. The Constitution requires that the Prime Minister and other Ministers of State who constitute the Cabinet be civilians. The Prime Minister, on behalf of the whole Cabinet, holds the authority of supreme command and supervision of the SDF. The Minister of Defense, who is exclusively in charge of national defense, exercises general control and

supervises over the SDF duties. In addition, the National Security Council of Japan under the Cabinet deliberates important matters on national security.

At the MOD, the Minister of Defense takes charge of and manages the matters concerning national defense, and as the competent minister also manages and operates the SDF. The Minister of Defense is assisted in policy planning and political affairs by the State Minister of Defense, the Parliamentary Vice-Ministers of Defense (two) and the Senior Adviser to the Minister of Defense.

In addition, the Special Adviser to the Minister of Defense provides the Minister of Defense with advice on important affairs under the jurisdiction of the MOD based on their expertise and experience. The Defense Council consisting of political appointees, civilian officials and uniformed SDF personnel deliberates on basic principles concerning affairs under the Ministry's jurisdiction. Through these ways, the MOD aims to further ensure civilian control.

As mentioned above, the civilian control system is well established. However, in order to ensure that the system achieves good results, it is necessary to continue making practical efforts in both political and administrative aspects, along with a deep interest in national defense taken by the people.

See Chapter 3, Section 1 (National Security Council)
Chapter 3, Section 2-1-2 (Systems to Support the Minister of Defense)

² Article 2 of the NPT states that "Each non-nuclear-weapon State Party to the Treaty undertakes...not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices..."

³ The Cabinet's control over military matters was strictly limited.

Section **1**

Japan's National Security Policy Framework

The main documents pertaining to Japan's national security policy are the National Security Strategy (NSS), the National Defense Program Guidelines (NDPG), and the Medium Term Defense Program (MTDP).

The NSS was formulated in December 2013 as Japan's first ever basic policy on national security with a focus on diplomatic and defense strategies.

The NDPG was established based on the NSS, and it defines the basic policies for Japan's future defense, the role of its defense capabilities, and specific organizational targets for the Self-Defense Forces (SDF). The NSS and NDPG are mainly designed for the next decade or so.

The MTDP specifies a maximum budget and the amount of mainstay defense equipment to be acquired over the subsequent five-year period in order to achieve the defense capability targets defined in the NDPG.

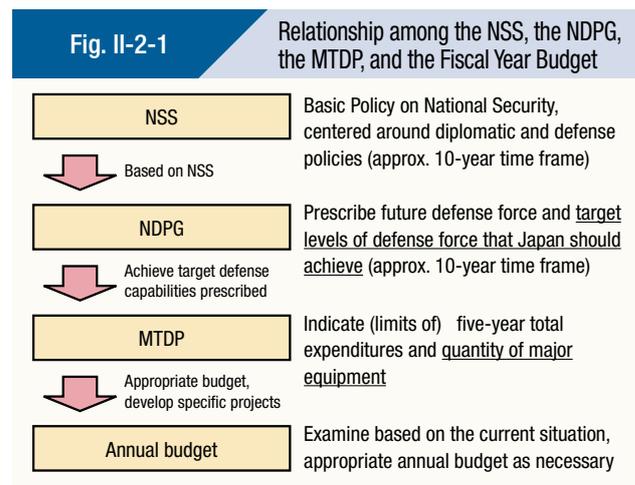
Japan must protect its territory, territorial waters and airspace, and the lives and property of its people without disregarding the realities of the North Korean ballistic missile issue, deepening unilateral attempts to change the status quo, rapid changes in the military balance, new domains such as space and cyber, and economic security challenges.

In January 2022, Prime Minister Kishida Fumio announced that the NSS, NDPG, and MTDP were

going to be newly formulated over a year, and they are currently under discussion among the relevant ministers.

The Ministry of Defense (the MOD) established the Defense Strengthening Acceleration Council, chaired by the Minister of Defense. The Council discusses all manners of options for protecting Japan's territory, territorial waters and airspace, and the lives and property of its people.

 See Fig. II-2-1 (Relationship among the NSS, the NDPG, the MTDP, and the Fiscal Year Budget)



Section 2

Outline of the National Security Strategy (NSS)

The Current NSS calls on Japan to contribute more proactively than ever before to ensuring the peace, stability, and prosperity of the international community, while seeking security in Japan and peace and stability in the Asia-Pacific region, in close cooperation with related countries including the United States.

Furthermore, in achieving this fundamental principle of national security, it makes national interests and goals clear, and demonstrates a strategic approach that needs to be employed.



See Fig. II-2-2 (Outline of the NSS)
Reference 2 (National Security Strategy (Outline))

Column

Responding to rapidly changing and evolving missile technologies

In the area surrounding Japan, missile-related technologies, such as hypersonic gliding weapons and missiles that fly in an irregular trajectory, are changing and evolving at rapid speed.

Japan has developed a ballistic missile defense architecture. But as our country draws up a new national security strategy, we are considering every possible option, based on the critical awareness that it is questionable whether we can really protect the lives and livelihood of the people by just improving our intercepting capability. This examination is conducted within the scope of the Constitution and international law, and there is no change to the stance that the so-called “preemptive strike” is unacceptable.

At the joint press conference following the Japan-U.S. Summit Meeting on May 23, 2022, Prime Minister Kishida said in regards to this examination, “And also from myself, all the options will be there, not to exclude any one of them including “counterstrike capabilities.””

As Prime Minister HATOYAMA Ichiro (then) stated at the Diet in 1956 (read by Defense Agency Director General FUNADA Naka on behalf of the prime minister), the Japanese government has interpreted that if there occurs a strike using guided missiles and other related weapons, taking the minimum necessary measures for preventing such a strike, for example, striking the base of that missile as long as there is no other means to defend against the strike is within the scope of self-defense in terms of legal principles and is therefore possible.

Furthermore, the government has traditionally interpreted a point in time when an armed attack on Japan occurs as when the opponent launches an armed attack and has interpreted that we do not have to wait for suffering actual damage by an armed attack. Japan's use of military force after the opponent launches an armed attack is different from the so-called preemptive strike by which the enemy country is attacked before its armed attack occurs.

Fig. II-2-2 Outline of the NSS

Fundamental Principle of National Security = Proactive Contribution to Peace Based on the Principle of International Cooperation		
National Interests	<ul style="list-style-type: none"> ◇ Maintain Japan's peace and security, and ensure its survival ◇ Consolidate Japan's peace and security ◇ Maintain and protect international order based on universal values and rules 	
Objectives	<ul style="list-style-type: none"> ◇ Reinforce necessary deterrence and prevent direct threats to Japan ◇ Improve the security environment of the Asia-Pacific region, and prevent the emergence of and reduce threats through strengthening the Japan-U.S. Alliance and enhancing the trust and cooperative relationships between Japan and its partners within and outside of the region ◇ Improve the global security environment and build a prosperous international community 	
Japan's Strategic Approaches to National Security		
1	Strengthening and Expanding Japan's Capabilities and Roles	<ul style="list-style-type: none"> ● Strengthen diplomacy ● Build a comprehensive defense architecture ● Strengthen efforts for the protection of Japan's territorial integrity ● Ensure maritime security ● Strengthen cybersecurity ● Strengthen measures against international terrorism ● Enhance intelligence capabilities ● Defense equipment and technology cooperation ● Ensure the stable use of outer space and promote its use for security purposes ● Strengthen technological capabilities
2	Strengthening the Japan-U.S. Alliance	<ul style="list-style-type: none"> ● Further strengthen the security and defense cooperation between Japan and the U.S. ● Ensure a stable presence of the U.S. Forces
3	Strengthening Diplomacy and Security Cooperation with Japan's Partners for Peace and Stability in the International Community	<ul style="list-style-type: none"> ● Enhance the cooperative relations with the ROK, Australia, ASEAN countries, and India ● Establish a "Mutually Beneficial Relationship Based on Common Strategic Interests" with China ● Encourage North Korea to take concrete actions to achieve a comprehensive resolution of outstanding issues of concern, such as the abduction, nuclear and missiles issues ● Advance cooperation with Russia in all areas ● Actively utilize regional and trilateral cooperation frameworks ● Cooperate with partners of the Asia-Pacific region ● Cooperate with countries outside the Asia-Pacific region
4	Proactive Contribution to International Efforts for Peace and Stability of the International Community	<ul style="list-style-type: none"> ● Strengthen diplomacy at the United Nations ● Strengthen the rule of law ● Lead international efforts on disarmament and non-proliferation ● Promote international peace cooperation ● Promote international cooperation against global terrorism
5	Strengthening Cooperation Based on Universal Values to Resolve Global Issues	<ul style="list-style-type: none"> ● Share universal values; address development issues and realize "human security"; cooperate with human resource development efforts in developing countries; maintain and strengthen the free trade system; respond to energy and environmental issues; enhance people-to-people exchanges
6	Strengthening the Domestic Foundation that Supports National Security and Promoting Domestic and Global Understanding	<ul style="list-style-type: none"> ● Maintain and enhance defense production and technological bases ● Boosting communication capabilities ● Social base ● Enhancing the intellectual base

Section 3 Outline of NDPG

Since it was first formulated in 1976, the NDPG has been established six times. The Current NDPG was formulated as “National Defense Program Guidelines for FY2019 and beyond (2018 NDPG)” in December

2018.¹

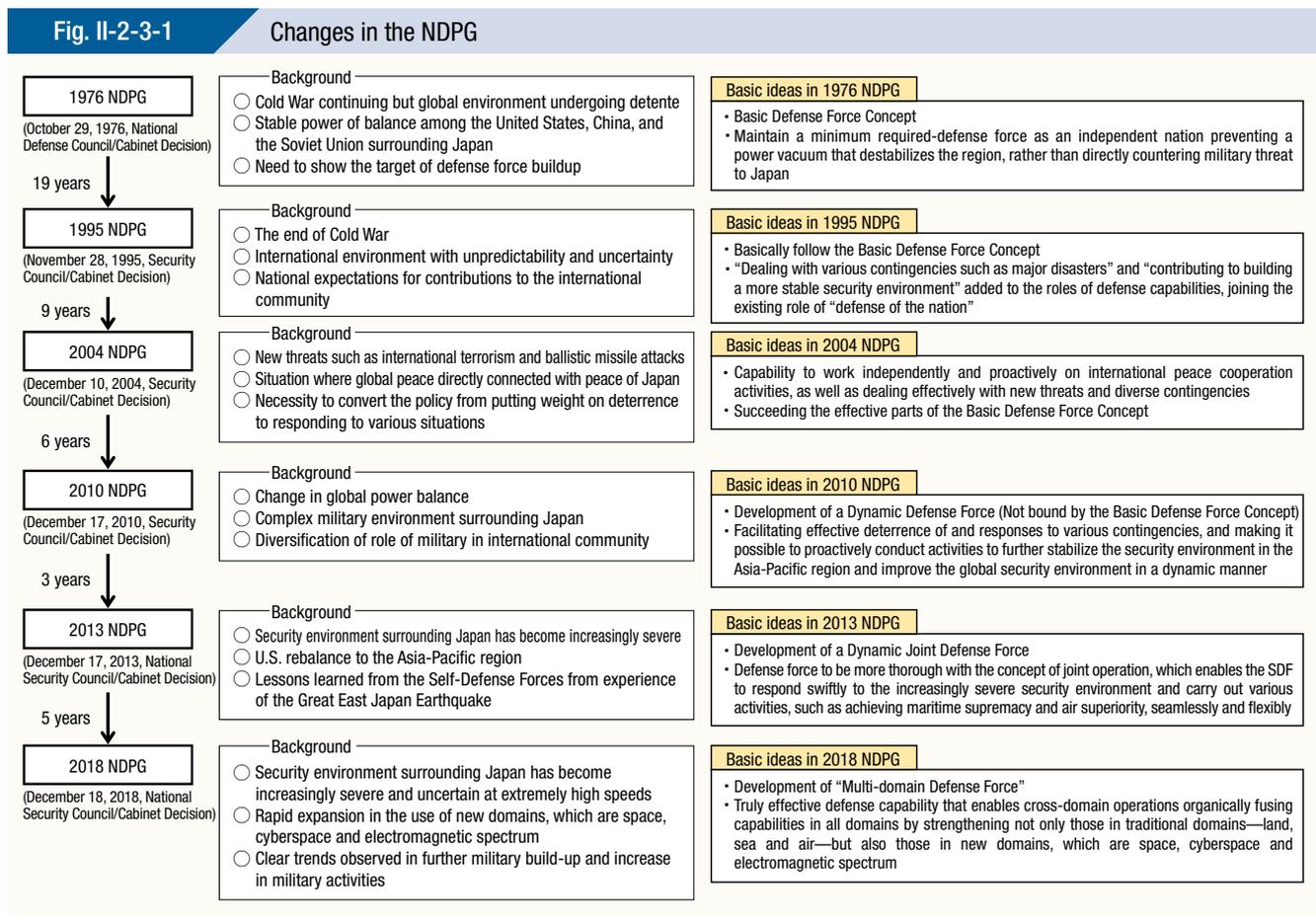
See Fig. II-2-3-1 (Changes in the NDPG) Reference 3 (National Defense Program Guidelines for FY2019 and Beyond (2018 NDPG))

1 Japan's Basic Defense Policy

The defense objectives of the Current NDPG are to create a desirable security environment while deterring threats from reaching Japan, and should a threat reach Japan, to counter that threat. Additionally, as means of achieving these objectives, Japan has referred to: (1) Japan's own architecture for national defense; (2) the Japan-U.S. Alliance; and (3) security cooperation, and has established the following basic policy to improve and strengthen each means.

1 Strengthening Japan's Own Architecture for National Defense: Building a Multi-Domain Defense Force

In order to ensure the achievement of the national defense objectives, Japan will build a national defense architecture that will integrate the strengths at the nation's disposal, enabling not only the efforts of the MOD and the SDF, but also coherent, whole-of-



¹ The relevant sections of the National Defense Program Guidelines on the land-based Aegis system (Aegis Ashore) were modified by “Procurement of a New Missile Defense System, etc. and Strengthening Stand-off Defense Capability” (approved by the National Security Council and the Cabinet on December 18, 2020).

government efforts, as well as cooperation with local governments and private entities.

Concerning the strengthening of Japan's defense capabilities, Japan will build a Multi-domain Defense Force with the following qualities as truly effective defense capabilities that can effectively deter and counter qualitatively and quantitatively superior military threats in an increasingly severe security environment.

1. Being able to execute cross-domain operations, which organically fuse capabilities in all domains, including space, cyberspace and electromagnetic spectrum to generate synergy and amplify the overall strength
2. Being capable of sustained conduct of flexible and strategic activities during all phases from peacetime to armed contingencies
3. Being capable of strengthening the ability of the Japan-U.S. Alliance to deter and counter threats as well as promoting multi-faceted and multi-layered security cooperation

Japan's defense force, consisting of these measures, must fulfill the roles described in Fig. II-2-2-2 (Roles

to Be Fulfilled by Defense Force) during peacetime seamlessly and in a combined manner.

 See Fig. II-2-3-2 (Roles to Be Fulfilled by Defense Force)

2 Strengthening the Japan-U.S. Alliance

The Japan-U.S. Security Arrangements constitute a cornerstone for Japan's national security, and the Japan-U.S. Alliance plays a significant role for the peace, stability and prosperity of the international community. In this context, Japan needs to press ahead with such efforts as bolstering the ability of the Japan-U.S. Alliance to deter and counter threats, enhancing and expanding cooperation in a wide range of areas, and steadily implementing measures concerning the stationing of U.S. Forces in Japan.

3 Strengthening Security Cooperation

In line with the vision of a "Free and Open Indo-Pacific," Japan will strategically promote multifaceted

Fig. II-2-3-2 Roles to Be Fulfilled by Defense Force

Roles	Outline
From peacetime to "gray-zone" situations	<ul style="list-style-type: none"> ● The SDF will, in close integration with diplomacy, promote strategic communications including bilateral/multilateral training/exercises and overseas port visits on a steady-state basis. ● The SDF will conduct persistent intelligence, surveillance and reconnaissance (ISR) activities around Japan. The SDF will prevent the occurrence or escalation of emergencies by employing flexible deterrent options and other measures. ● The SDF will, in coordination with the police and other agencies, immediately take appropriate measures in response to actions that violate Japan's sovereignty including incursions into its territorial airspace and waters.
Attack against Japan including its remote islands	<ul style="list-style-type: none"> ● The SDF will quickly maneuver and deploy requisite units to block access and landing of invading forces while ensuring maritime and air superiority. ● Even when maintaining maritime and air superiority becomes untenable, the SDF will block invading forces' access and landing from outside their threat envelopes. ● Should any part of the territory be occupied, the SDF will retake it by employing all necessary measures. ● Against airborne attack by missiles and aircraft, the SDF will respond in a swift and sustained manner by applying optimal means and minimize damage to maintain SDF's capabilities as well as the infrastructure upon which such capabilities are employed. ● In response to attack by guerrillas or special operations forces, the SDF will protect critical facilities including nuclear power plants and search and destroy infiltrating forces.
Space, cyber and electromagnetic domains during all phases	<ul style="list-style-type: none"> ● To prevent any actions that impede its activities, the SDF will conduct, on a steady-state basis, persistent monitoring as well as collection and analysis of relevant information. ● In case of an event that impedes its activities, the SDF will promptly take such measures as damage limitation and recovery. ● In case of armed attack against Japan, the SDF will block and eliminate the attack by leveraging capabilities in space, cyber and electromagnetic domains. ● The SDF will contribute to comprehensive, whole-of-government efforts concerning these domains under appropriate partnership and shared responsibility with relevant organizations.
Large-scale disasters	<ul style="list-style-type: none"> ● The SDF will swiftly transport and deploy requisite units to take all necessary measures for initial response, and, as required, maintain its posture for disaster response for a longer term. ● The SDF will carefully address the needs of affected citizens and local governments. ● The SDF will engage in life saving, temporary repair and livelihood support in appropriate partnership and cooperation with relevant organizations, local governments and the private sector.
Collaboration with the United States based on the Japan-U.S. Alliance	<ul style="list-style-type: none"> ● In all stages from peacetime to armed contingencies, Japan will effectively conduct activities by playing on its initiative its own roles in the Japan-U.S. Alliance.
Promotion of security cooperation	<ul style="list-style-type: none"> ● The SDF will strategically promote defense cooperation and exchanges such as joint training and exercises, cooperation in defense equipment and technologies, capacity building assistance, and service-to-service exchange.

and multilayered security cooperation, taking into account the characteristics and situation specific to each region and country. As part of such efforts, Japan will actively leverage its defense capability to work on defense cooperation and exchanges which include bilateral/multilateral training and exercises, defense equipment and technology cooperation, capacity building assistance, and service-to-service exchanges.

Furthermore, Japan will also contribute to address global security challenges. Moreover, in implementing these initiatives, Japan will position the Japan-U.S. Alliance as its cornerstone and will work closely with the countries that share universal values and security interests, through full coordination with its diplomatic policy.

2 Priorities in Strengthening Defense Capability

For priority capability areas in strengthening defense capability, the NDPG sets forth that Japan will develop those areas as early as possible, allocating resources flexibly and intensively without adhering to existing

budget and human resource allocation, and undertake necessary fundamental reforms.

 Fig. II-2-3-3 (Priorities in Strengthening Capabilities Necessary for Cross-domain Operations)

Fig. II-2-3-3 Priorities in Strengthening Capabilities Necessary for Cross-domain Operations

Capabilities that should be acquired and strengthened	Outline
Capabilities in space domain	<ul style="list-style-type: none"> The SDF will improve various capabilities that leverage space domain including information-gathering, communication and positioning capabilities. The SDF will also build a structure to conduct persistent space situation monitoring. To ensure superiority in use of space at all stages from peacetime to armed contingencies, the SDF will work to strengthen capability to disrupt opponent's command, control, communications and information. The SDF will work to enhance cooperation with relevant agencies and with the United States and other relevant countries. The SDF will also engage in the creation of units specializing in space and develop human resources.
Capabilities in cyber domain	<ul style="list-style-type: none"> In order to prevent attack against SDF's command and communications systems and networks, SDF will continue to strengthen capabilities for persistent monitoring of them as well as for damage limitation and recovery in case of attack. The SDF will fundamentally strengthen its cyber defense capability, including capability to disrupt, during attack against Japan, opponent's use of cyberspace for the attack. The SDF will significantly expand its human resources with specialized expertise and skills, and contribute to whole-of-government efforts.
Capabilities in electromagnetic domain	<ul style="list-style-type: none"> The SDF will work to enhance information and communications capabilities as well as information collection and analysis capabilities related to electromagnetics, and develop an information sharing posture. The SDF will improve capabilities to minimize the effect of opponent's electronic jamming. The SDF will strengthen capabilities to neutralize radar and communications of opponent who intends to invade Japan. In order to smoothly perform these activities, the SDF will enhance its ability to appropriately manage and coordinate the use of electromagnetic spectrum.
Capabilities in maritime and air domains	<ul style="list-style-type: none"> The SDF will reinforce its posture for conducting persistent ISR at sea and in the air around Japan. The SDF will also strengthen surface and underwater operational capabilities including Unmanned Underwater Vehicles (UUV). By taking measures such as developing a fighter force structure that features Short Take-Off and Vertical Landing (STOVL) fighter aircraft, the SDF will improve air operation capability particularly on the Pacific side of Japan, where number of air bases is limited despite its vast airspace. Japan will take necessary measures to enable STOVL fighter aircraft to operate from existing SDF ships as required.
Stand-off defense capability	<ul style="list-style-type: none"> The SDF will acquire stand-off firepower and other requisite capabilities to deal with ships and landing forces attempting to invade Japan including remote islands from the outside of their threat envelopes. In order to appropriately leverage advances in military technologies, Japan will swiftly and flexibly strengthen stand-off defense capability through measures such as comprehensive research and development of related technologies.
Comprehensive air and missile defense capability	<ul style="list-style-type: none"> In order to counter diverse airborne threats of ballistic and cruise missiles and aircraft, the SDF will establish a structure with which to conduct integrated operation of various equipment pieces, thereby providing persistent nation-wide protection and also enhancing the capability to simultaneously deal with multiple, complex airborne threats. The SDF will also study ways to counter future airborne threats.
Maneuver and deployment capability	<ul style="list-style-type: none"> Requisite SDF units need to conduct sustained, persistent activities in appropriate areas on a steady-state basis. In order to maneuver and deploy according to the situation, the SDF will strengthen amphibious operation and other capabilities. To enable swift and large-scale transport, the SDF will strengthen joint transport capability including inter- and intra-theater transport capabilities tailored to the characteristics of remote island areas. The SDF will also work to collaborate with commercial transport on a steady-state basis.
Sustainability and resiliency	<ul style="list-style-type: none"> The SDF will take necessary measures for securing ammunition and fuel, ensuring maritime shipping lanes, and protecting important infrastructure. In particular, while cooperating with relevant ministries and agencies, the SDF will improve sustainability through safe and steady acquisition and stockpiling of ammunition and fuel. The SDF will also improve resiliency in a multi-layered way through efforts including dispersion, recovery from damage, and substitution of infrastructure and other foundations for SDF operations. Further, the SDF will review existing equipment maintenance methods, thereby ensuring high operational availability.

3 Organization of the SDF

The NDPG states that, in order to realize cross-domain operations, including in the new domains of space, cyberspace, and electromagnetic spectrum, the SDF will strengthen joint operations and develop the organization

of each SDF service.

 See Fig. II-2-3-4 (Strengthening Joint Operations and Developing Organization of Each SDF Service)
Fig. II-2-3-5 (Transition of the NDPG Annex Tables)

4 Elements Supporting Defense Capability

The NDPG sets forth that the initiatives related to elements supporting defense capability will be emphasized in order for Japan's defense capability to

demonstrate its true value.

 See Fig. II-2-3-6 (Elements Supporting Defense Capability)

Fig. II-2-3-4 Strengthening Joint Operations and Developing Organization of Each SDF Service

Organization of SDF, etc.	Summary
Joint operation to realize cross-domain operations	<ul style="list-style-type: none"> ● The SDF will strengthen the necessary posture of the Joint Staff Office in order to further promote the unity of the GSDF, MSDF, and ASDF in all areas. ● Regarding the space domain, the SDF will maintain an ASDF unit that specializes in space domain missions, and strengthen its posture for joint operations. ● Regarding the cyber domain, the SDF will maintain a cyberspace defense unit as an integrated unit in order to fundamentally strengthen cyber defense capability. ● Regarding the electromagnetic spectrum domain, the SDF will strengthen the posture of the Joint Staff Office and each SDF service. ● GSDF will maintain surface-to-air guided missile units; MSDF will maintain Aegis-equipped destroyers and Aegis system-equipped vessels; ASDF will maintain surface-to-air guided missile units; and the SDF will build comprehensive air and missile defense capability comprising these assets. ● The SDF will maintain a maritime transport unit as an integrated unit that allows SDF units to swiftly maneuver and deploy in joint operations.
Organization of GSDF	<ul style="list-style-type: none"> ● GSDF will maintain rapidly deployable basic operational units furnished with advanced mobility and ISR capabilities. GSDF will also maintain mobile operating units equipped with specialized functions, in order to effectively perform operations such as various missions in cyber and electromagnetic domains. ● GSDF will strengthen its ability to deter and counter threats by taking measures including persistent steady-state maneuvers and the stationing of units. To be able to counter invasion of remote islands, GSDF will maintain surface-to-ship guided missile units and hyper-velocity gliding projectile units for remote island defense. ● GSDF will review their organization and equipment with focus on tanks, howitzers and rockets. GSDF will also review their organization and equipment related to aerial firepower, and thoroughly implement rationalization and streamlining of these units and appropriately position them to meet conditions and characteristics of each region. ● The authorized number of personnel will be maintained at 159,000.
Organization of MSDF	<ul style="list-style-type: none"> ● MSDF will maintain reinforced destroyer units including destroyers with improved multi-mission capabilities, minesweeper units and embarked patrol helicopter units, and organize surface units composed of these units. ● MSDF will maintain patrol ship units to enable enhanced steady-state ISR in the waters around Japan. ● MSDF will maintain reinforced submarine units for underwater ISR as well as patrols and defense in the waters around Japan. ● By introducing a test-bed submarine, MSDF will work to achieve greater efficiency in submarine operations and accelerate capability improvement, thereby enhancing persistent ISR posture. ● In order to effectively conduct steady-state, wide-area airborne ISR, and to effectively engage in patrols and defense in the waters around Japan, MSDF will maintain fixed-wing patrol aircraft units.
Organization of ASDF	<ul style="list-style-type: none"> ● ASDF will maintain air warning and control units consisting of ground-based warning and control units and reinforced airborne warning units: ground-based warning and control units are capable of conducting persistent surveillance in vast airspace on the Pacific side, and airborne warning units are capable of conducting effective, sustained airborne warning, surveillance and control during situations with heightened tensions. ● ASDF will maintain reinforced fighter aircraft units, and aerial refueling and transport units. ● In order to be able to effectively carry out activities such as maneuver and deployment of ground forces, ASDF will maintain air transport units. ● In order to be able to conduct information collection in areas that are relatively remote for Japan and persistent airborne monitoring during situations with heightened tensions, ASDF will maintain unmanned aerial vehicle units.

Fig. II-2-3-5

Transition of the NDPG Annex Tables

	Category	1976 NDPG	1995 NDPG	2004 NDPG	2010 NDPG	2013 NDPG	2018 NDPG	
Joint Units	Cyber Defense Units						1 squadron	
	Maritime Transport Units						1 group	
GSDF	Authorized Number of Personnel	180,000	160,000	155,000	154,000	159,000	159,000	
	Active-Duty Personnel		145,000	148,000	147,000	151,000	151,000	
	Ready Reserve Personnel		15,000	7,000	7,000	8,000	8,000	
	Major Units	Regional Deployment Units ¹	12 divisions 2 combined brigades	8 divisions 6 brigades	8 divisions 6 brigades	8 divisions 6 brigades	5 divisions 2 brigades	5 divisions 2 brigades
		Rapid Deployment Units	1 armored division 1 artillery brigade 1 airborne brigade 1 training group 1 helicopter brigade	1 armored division 1 airborne brigade 1 helicopter brigade	1 armored division Central Readiness Force	Central Readiness Force 1 armored division	3 rapid deployment divisions 4 rapid deployment brigades 1 armored division 1 airborne brigade 1 amphibious rapid deployment brigade 1 helicopter brigade	3 rapid deployment divisions 4 rapid deployment brigades 1 armored division 1 airborne brigade 1 amphibious rapid deployment brigade 1 helicopter brigade
		Surface-to-Ship Guided Missile Units					5 surface-to-ship guided missile regiments	5 surface-to-ship guided missile regiments
		Hyper Velocity Gliding Projectile Intended for the Defense of Remote Islands Units						2 battalions
		Surface-to-Air Guided Missile Units	8 anti-aircraft artillery groups	8 anti-aircraft artillery groups	8 anti-aircraft artillery groups	7 anti-aircraft artillery groups/regiments	7 anti-aircraft artillery groups/regiments	7 anti-aircraft artillery groups/regiments
		Ballistic Missile Defense Units						2 squadrons ⁸
	Major Equipment	Tanks ²	(approx. 1,200)	approx. 900	approx. 600	approx. 400	(approx. 300)	(approx. 300)
Artillery (Main artillery) ²		(approx. 1,000/vehicle)	(approx. 900/vehicle)	(approx. 600/vehicle)	approx. 400/vehicle	(approx. 300/vehicle)	(approx. 300/vehicle)	
MSDF	Major Units	Destroyers				4 flotillas (8 divisions) 4 flotillas	4 flotillas (8 divisions) 6 flotillas	4 groups (8 divisions)
		Destroyer and minesweeper vessels For mobile operations ⁷ Regional deployment ⁷	4 flotillas (Regional units) 10 units	4 flotillas (Regional units) 7 units	4 flotillas (8 divisions) 5 divisions			2 groups (13 divisions)
		Submarine Units Minesweeper Units Patrol Aircraft Units	6 divisions 2 flotillas (Land-based) 16	6 divisions 1 flotilla (Land-based) 13	4 divisions 1 flotilla 9 squadrons	6 divisions 1 flotilla 9 squadrons	6 divisions 1 flotilla 9 squadrons	6 divisions 9 squadrons
	Major Equipment	Destroyers Submarines Patrol vessels Combat aircraft	approx. 60 16 approx. 220	approx. 50 16 approx. 170	47 16 approx. 150	48 22 approx. 150	54 22 approx. 170	54 22 12 approx. 190
ASDF	Major Units	Air Warning & Control Units	28 warning groups 1 squadron	8 warning groups 20 warning squadrons 1 squadron	8 warning groups 20 warning squadrons 1 AEW group (2 squadrons)	4 warning groups 24 warning squadrons 1 AEW group (2 squadrons)	28 warning squadrons 1 AEW group (3 squadrons)	28 warning squadrons 1 AEW wing (3 squadrons)
		Fighter Aircraft Units Fighter-Interceptor Units Support Fighter Units	10 squadrons 3 squadrons	9 squadrons 3 squadrons	12 squadrons	12 squadrons	13 squadrons	13 squadrons ⁹
		Air Reconnaissance Units	1 squadron	1 squadron	1 squadron	1 squadron		
		Aerial Refueling/Transport Units			1 squadron	1 squadron	2 squadrons	2 squadrons
		Air Transport Units	3 squadrons	3 squadrons	3 squadrons	3 squadrons	3 squadrons	3 squadrons
		Surface-to-Air Guided Missile Units	6 fire groups	6 fire groups	6 fire groups	6 fire groups	6 fire groups	4 fire groups (24 fire squadrons)
		Space Domain Mission Units						1 squadron
	Unmanned Aerial Vehicle Units						1 squadron	
Major Equipment	Combat aircraft (Fighters)	approx. 430 (approx. 350) ³	approx. 400 approx. 300	approx. 350 approx. 260	approx. 340 approx. 260	approx. 360 approx. 280	approx. 370 approx. 290	
Major Equipment/Units that may also serve for BMD missions ⁴	Aegis-equipped Destroyers			4 ships	6 ships ⁵	8 ships	8 ships	
	Air Warning & Control Units			7 warning groups 4 warning squadrons	11 warning groups/units			
	Surface-to-Air Guided Missile Units			3 groups	6 groups			

Notes: 1. Units that were categorized as those deployed in a steady state (peacetime) until 2010 NDPG

2. Data on tanks and artillery were not included in 1976 NDPG, 2013 NDPG and 2018 NDPG, but are shown here for making comparisons with Annex Tables for 1995 NDPG up to 2010 NDPG.

3. Data on fighters were not included in 1976 NDPG but are shown here for making comparisons with Annex Tables for 1995 NDPG up to 2018 NDPG.

4. Major equipment/units that may also serve for BMD missions were included in MSDF's major equipment or ASDF's major units in 2004 NDPG and 2010 NDPG, but those newly procured are included in the categories of Aegis-equipped destroyers, Air Warning & Control Units, and Surface-to-Air Guided Missile Units in 2013 NDPG and 2018 NDPG.

5. In 2010 NDPG, Aegis-equipped destroyers with BMD functions were allowed to be additionally procured within the limited number of destroyers above, when separately determined in light of the progress in BMD technologies and financial circumstances.

6. Including Fighter Aircraft Units consisting of STOVL aircraft

7. Destroyers were expressed as Anti-submarine Surface Units (for mobile operations) or Anti-submarine Surface Units (regional units) in 1976 NDPG, as Destroyers (for mobile operations) or Destroyers (regional units) in 1995 NDPG, and as Destroyers (for mobile operations) or Destroyers (regional deployment) in 2004 NDPG.

8. While the plan was to prepare two land-based Aegis systems (Aegis Ashore) and maintain two ballistic missile defense units, as of the Cabinet decision in December 2020, the land-based Aegis System (Aegis Ashore) will be replaced by two Aegis system-equipped vessels, which will be maintained by the MSDF.

Fig. II-2-3-6

Elements Supporting Defense Capability

Element	Outline
Training and exercises	<ul style="list-style-type: none"> ● The SDF will expand the establishment and utilization of the domestic training areas and conduct effective training and exercises. ● The SDF will facilitate joint/shared use of U.S. Forces facilities and areas. ● The SDF will facilitate the use of places other than SDF facilities or U.S. Forces facilities and areas and the utilization of excellent training environments overseas such as the United States and Australia. ● The MOD/SDF will reinforce coordination with relevant agencies including police, firefighters, and the Japan Coast Guard.
Medical Care	<ul style="list-style-type: none"> ● The MOD/SDF will strengthen its posture for medical care and onward transfer of patients, seamlessly covering the entire stretch between the frontline and final medical evacuation destinations. ● The SDF will establish an efficient and high-quality medical system through endeavors such as upgrading of SDF hospitals into medical hubs with enhanced functions. ● The SDF will proceed to improve the management of the National Defense Medical College, enhance its research functions and strive to secure high-quality talents, as well as striving to better secure the number of medical officers.
Collaboration with Local Communities	<ul style="list-style-type: none"> ● The MOD/SDF will constantly and actively engage in public relations activities regarding defense policies and activities, and will make careful, detailed coordination to meet desires and conditions of local communities. ● Upon reorganization of operation units as well as placement of SDF garrisons and bases, the MOD/SDF will give due considerations to local conditions and characteristics, so as to be able to gain the understanding of the local governments and residents.
Intellectual Base	<ul style="list-style-type: none"> ● The MOD/SDF will strive to dispatch instructors to educational institutions and hold public symposiums so as to enable the public to recognize knowledge and information about securities policies accurately, and will also endeavor to provide efficient and highly trustworthy information. ● The MOD/SDF will expand networks and institutional collaboration with research and education organizations, universities, and think-tanks in Japan and abroad in order to further strengthen the research system of the MOD/SDF with the National Institute for Defense Studies playing central roles.

Section 4

Outline of the MTDP (FY2019-FY2023)

1 Program Guidelines

The current MTDP formulated in December 2018 indicates that the SDF will endeavor to build up defense capability based on the five basic policies, in accordance with the NDPG.¹

Specifically, the SDF will strengthen its structure and capability based on the “Priorities in Strengthening Defense Capabilities” and “Structure of the SDF” of the

NDPG.

-  See Fig. II-2-3-3 (Priorities in Strengthening Capabilities Necessary for Cross-domain Operations)
 Fig. II-2-4-1 (Five Basic Policies of the MTDP)
 Fig. II-2-4-2 (Projects pertaining to the Priorities in Strengthening Capabilities Essential for Cross-domain Operations)

Fig. II-2-4-1

Five Basic Policies of the MTDP

Five Basic Policies of the MTDP in accordance with the NDPG	
1	<p>Acquiring and Strengthening Capabilities Essential for Realizing Cross-domain Operations</p> <ul style="list-style-type: none"> ● The SDF will acquire and strengthen capabilities in new domains, which are space, cyberspace and electromagnetic spectrum. ● The SDF will strengthen and protect command, control, communications and information (C4I) capabilities that effectively connect capabilities in all domains including the new ones. ● The SDF will enhance capabilities in traditional domains, such as capabilities in maritime and air domains, stand-off defense capability, comprehensive air and missile defense capability and maneuver and deployment capability. ● The SDF will enhance sustainability and resiliency of defense capability including logistics support.
2	<p>Improving the Efficiency of Acquisition of Equipment and Reinforcing the Technology Base</p> <ul style="list-style-type: none"> ● In procuring equipment, by properly combining the introduction of new, high performance equipment, with life extension and improvement of existing equipment, the MOD/SDF will efficiently secure defense capability in necessary and sufficient “quality” and “quantity.” ● The MOD/SDF will strive to reduce the life-cycle costs and improve cost-effectiveness by reinforcing project management. ● The MOD/SDF will make focused investments through selection and concentration in cutting-edge technologies. The MOD/SDF will also dramatically shorten R&D timelines by streamlining its processes and procedures.
3	<p>Reinforcing Human Resource Base</p> <ul style="list-style-type: none"> ● The MOD/SDF will comprehensively promote various measures to reinforce human resource base such as securing diverse and high-quality talents including diversifying applicant pool, promoting women's participation and leveraging SDF Reserve Personnel, improving living and work environment, promoting work style reforms, and improving treatment, etc.
4	<p>Strengthening the Japan-U.S. Alliance and Security Cooperation</p> <ul style="list-style-type: none"> ● Japan will further promote a variety of cooperative activities and consultations with the United States, in a wide range of areas under “Guidelines for Japan-U.S. Defense Cooperation.” Japan will also actively facilitate measures for the smooth and effective stationing of U.S. forces in Japan. ● In line with the vision of Free and Open Indo-Pacific, to strategically promote multifaceted and multilayered security cooperation, Japan will promote defense cooperation and exchanges which include bilateral training and exercises, defense equipment and technology cooperation, capacity building assistance, and interchanges among military branches.
5	<p>Greater Efficiency and Streamlining in the Build-Up of Defense Capability</p> <ul style="list-style-type: none"> ● With respect to hedging against invasion scenarios such as amphibious landing employing large-scale ground forces, the SDF will retain forces only enough to maintain and carry on the minimum necessary expertise and skills, by achieving efficiency and rationalization. ● Considering increasingly severe fiscal conditions and the importance of other budgets related to people's daily life, the MOD/SDF will work to achieve greater efficiency and streamlining in defense force development while harmonizing with other policies and measures of the Government.

¹ The relevant sections of the MTDP on the land-based Aegis system (Aegis Ashore) were modified by “Procurement of a New Missile Defense System, etc. and Strengthening Stand-off Defense Capability” (approved by the National Security Council and the Cabinet on December 18, 2020).

Fig. II-2-4-2

Projects pertaining to the Priorities in Strengthening Capabilities Essential for Cross-domain Operations

Category		Main Programs
Space, cyber and electromagnetic domains	Space domain	<ul style="list-style-type: none"> ○ Establishment of the Space Operations Group ○ Development of the Space Situational Awareness System
	Cyber domain	<ul style="list-style-type: none"> ○ Enhancement of structure for Cyber Defense Group, etc. ○ Improvement of the survivability of SDF's command and communications systems and networks
	Electromagnetic domain	<ul style="list-style-type: none"> ○ Establishment of new specialized units in internal subdivisions and the Joint Staff Office ○ Installation of electronic data collectors and ground radio wave measuring apparatuses
Traditional domains	Maritime and air domains	<ul style="list-style-type: none"> ○ Procurement of new types of destroyers (FFM), submarines, patrol vessels, fixed-wing patrol aircraft (P-1), patrol helicopters (SH-60K, SH-60K upgraded capability), and carrier-borne unmanned aerial vehicles ○ Increase of F-35A, introduction of F-35B, refurbishment of Izumo-type destroyers, and F-15 fighter upgrade
	Stand-off defense capability	<ul style="list-style-type: none"> ○ Procurement of stand-off missiles (JSM, JASSM, and LRASM) ○ Promotion of R&D concerning hyper velocity gliding projectiles intended for the defense of remote islands
	Comprehensive air and missile defense capability	<ul style="list-style-type: none"> ○ Enhancement of abilities of Aegis destroyers and Patriot surface-to-air guided missiles
	Maneuver and deployment capability	<ul style="list-style-type: none"> ○ Procurement of transport aircraft (C-2) and transport helicopters (CH-47JA), and introduction of new utility helicopters ○ Promotion of efforts to obtain cooperation from related local governments for permanent deployment of GSDF Osprey aircraft (V-22) to Kyushu Saga International Airport
Strengthening sustainability and resiliency	Securing continuous operations	<ul style="list-style-type: none"> ○ Preferential procurement of anti-aircraft missiles, torpedoes, stand-off firepower, and interceptor missiles for ballistic missile defense ○ Promotion of efforts for dispersion, recovery from damage, and substitution of infrastructure and other foundations for the SDF operations
	Ensuring the operational availability of equipment	<ul style="list-style-type: none"> ○ Securing of a sufficient budget for maintenance of equipment ○ Expansion of PBL (Performance Based Logistics) and other umbrella contracts

2 Quantities of Major Procurement

The Annex Table of the MTDP (FY2019-FY2023) shows details of the quantities of major equipment items procured.

 See Fig. II-2-4-3 (Annex Table of the MTDP (FY2019-FY2023) and Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019-FY2023))

3 Expenditures

The expenditure target for the implementation of the defense capability build-up described in the MTDP (FY2019-FY2023) amount to approximately ¥27.47 trillion in FY2018 prices.

Substantive funds will be secured by such means as thoroughly ensuring greater efficiency and streamlining in build-up of defense capability, optimizing equipment procurement through the efficient acquisition of equipment, and securing other revenue. The annual defense budgets targeted for the implementation of this MTDP is expected to be around approximately ¥25.5

trillion over the five years.

Further, the amount of expenses based on contracts (material expenses) to be newly concluded to implement this MTDP will be allocated within the ceiling of approximately ¥17.17 trillion in FY2018 prices (excluding the amount corresponding to payments outside of the program period for contracts that contribute to improving project efficiency, such as maintenance), and the future obligation shall be managed appropriately.

Fig. II-2-4-3

Annex Table of the MTDP (FY2019-FY2023) and Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019-FY2023)

Annex Table of the MTDP (FY2019-FY2023)			Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019-FY2023)
Service	Equipment	Quantity	Unit prices (*1)
GSDF	Mobile Combat Vehicles	134	Approx. 0.8 billion yen
	Armored Vehicles	29	(*2)
	New Utility Helicopters	34	Approx. 1.8 billion yen
	Transport Helicopters (CH-47JA)	3	Approx. 8.9 billion yen
	Surface-to-Ship Guided Missiles	3 companies (*3)	Approx. 5.6 billion yen (*4)
	Mid-Range Surface-to-Air Guided Missiles	5 companies	Approx. 14.3 billion yen (*4)
	Land-based Aegis Systems (Aegis Ashore)	2	Approx. 122.4 billion yen (*8)
	Tanks	30	Approx. 1.5 billion yen
	Howitzers (excluding mortars)	40	Approx. 0.7 billion yen
MSDF	Destroyers	10	Approx. 47.6 billion yen
	Submarines	5	Approx. 64.7 billion yen
	Patrol Vessels	4	(*2)
	Other Ships	4	(*5)
	Total (Tonnage)	23 (Approx. 66,000 tons)	—
	Fixed-Wing Patrol Aircraft (P-1)	12	Approx. 22.1 billion yen
	Patrol Helicopters (SH-60K/K (Upgraded Capability))	13	Approx. 7.3 billion yen (*2)
	Ship-Borne Unmanned Aerial Vehicles	3	(*2)
	Minesweeping and Transport Helicopters (MCH-101)	1	Approx. 7.3 billion yen
ASDF	Airborne Early Warning (Control) Aircraft (E-2D)	9	Approx. 26.2 billion yen
	Fighters (F-35A)	45	Approx. 11.6 billion yen
	F-15 fighter upgrade	20	Approx. 3.5 billion yen
	Aerial Refueling/Transport Aircraft (KC-46A)	4	Approx. 24.9 billion yen
	Transport Aircraft (C-2)	5	Approx. 22.3 billion yen
	Upgrade of PATRIOT Surface-to-Air Guided Missiles	4 groups (16 fire (PAC-3 MSE) squadrons)	Approx. 4.5 billion yen (*6)
	Unmanned Aerial Vehicles (Global Hawk)	1	Approx. 17.3 billion yen (*7)

1. Japan will basically pursue the establishment of 75 Patrol Helicopters and 20 Ship-borne UAVs at the completion of the "NDPG for FY2019 and beyond", but those exact numbers will be considered during the period of the "MTDP (FY2019-FY2023)."

2. 18 aircraft out of 45 aircraft of Fighters (F-35A) would have STOVLS.

*1 Prices are on a contract basis (prices for FY2018) and are the MOD's estimates as of the time of establishing the MTDP.

*2 Information on equipment items under development and equipment items, etc. subject to model selection (including STOVLS fighter aircraft) is not disclosed, as information disclosure may affect the proper acquisition of these equipment items in the future.

*3 The quantity of surface-to-ship guided missiles includes that of improved ones under development.

*4 Regarding surface-to-ship guided missiles and mid-range surface-to-air guided missiles, the maximum unit prices are indicated, as unit prices vary by acquisition year due to differences in components.

*5 Other ships are minesweeping vessels, ocean surveillance ships, and oceanographic research ships, and their unit prices are approximately 16.2 billion yen, 22.1 billion yen, and 20.3 billion yen, respectively.

*6 Assembly cost for 16 fire squadrons is scheduled to be allocated during the period of the MTDP. The unit price above is for one fire squadron.

*7 Assembly cost for one Global Hawk is scheduled to be allocated during the period of the MTDP.

*8 As a result of the Cabinet decision in December 2020, the land-based Aegis system (Aegis Ashore) will be replaced by two Aegis system-equipped vessels, which will be maintained by the MSDF. More details, including additional functions and design features, on the vessels will continue to be discussed with necessary measures taken.

Column

Establishment of the SDF Cyber Defense Command

We reviewed the structure of the SDF C4 Systems Command under which the Cyber Defense Group is assigned and on March 17, 2022, the SDF Cyber Defense Command was newly reorganized as a joint GSDF, MSDF, and ASDF unit.

The reorganization of this new unit is intended not only to build up training support functions, such as the planning and evaluation of training of the SDF's cyber-related units using a practical training environment, in addition to originally possessed cyber defense functions, but also to enhance the structure of the unit's headquarters. Another purpose of the move is to enhance the structure integrating the GSDF, MSDF, and ASDF by consolidating the cyber defense functions possessed by the cyber units of the Self-Defense Forces (the SDF) with the new unit for a more effective and efficient cyber defense.

The duties of the unit are mainly to deal with cyber attacks and other offensive moves and to manage and operate the Defense Information Infrastructure (DII), the MOD/SDF's common network.

With cyber attacks and other offensive moves becoming more advanced and sophisticated day by day as network-related technologies are making steady progress, in order to respond to cyber attacks in a swift and appropriate manner, we make

constant efforts to keep abreast of the latest information, including cyber-related risks, countermeasures, and technological trends, through strategic talks and joint exercises with allies and other parties, cooperation with the private sector, and other efforts to build up our capability to deal with cyber attacks.

We, as a specialized unit on the cyber domain, will continue to make constant efforts to take all possible measures to make sure that we can defend the DII, the SDF's activity base, and other information systems and networks against cyber attacks.



The defense minister is handing the unit's flag at a ceremony in celebration of the reorganization of the new unit.

Section 1 National Security Council

As the security environment surrounding Japan grows increasingly testing, Japan faces mounting security challenges that it needs to address. Under such circumstances, it is necessary to carry forward the policies pertaining to national security from a strategic perspective under strong political leadership with the Prime Minister at its core. For this reason, the National Security Council was established in the Cabinet to provide a platform to discuss important matters with regard to Japan's security, and has been serving as a control tower for foreign, defense, and economic policies pertaining to national security. Since its establishment in December 2013, the Council has met 287 times (as of the end of March 2022). The National Security Strategy (NSS) and the National Defense Program Guidelines (NDPG) are also deliberated and approved in this National Security Council.

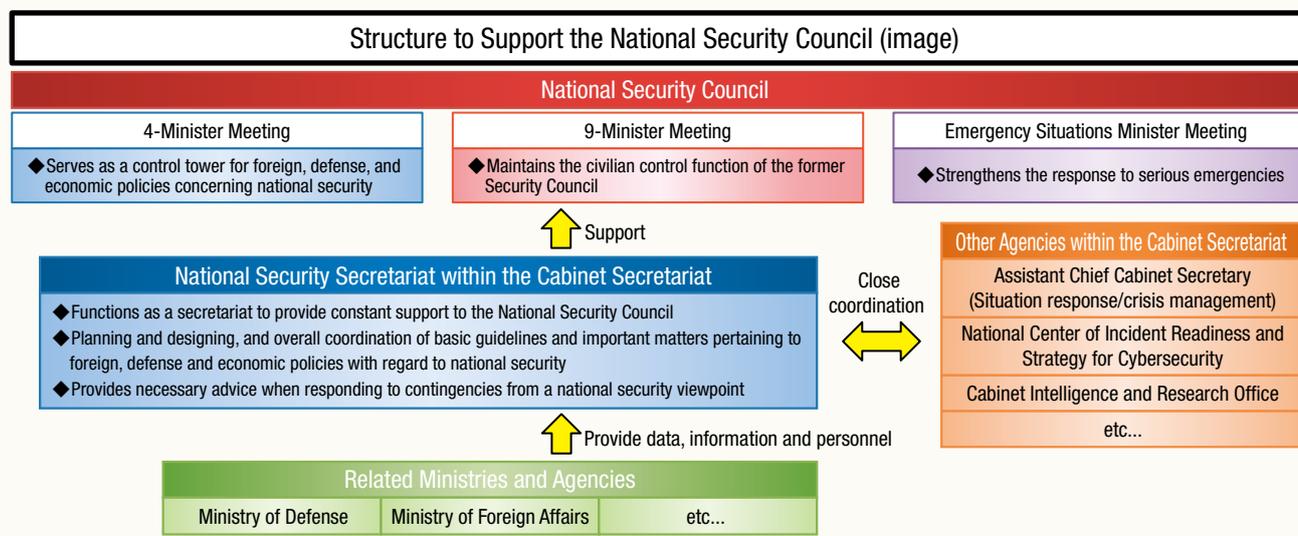
The National Security Secretariat established within the Cabinet Secretariat provides constant support to the National Security Council as its secretariat. The Secretariat is also tasked with planning and designing, and overall coordination of basic guidelines and important matters with regard to foreign, defense, and economic policies pertaining to national security, and is supported in the form

of both human resources and information by government institutions closely related in terms of policies. Considering that the coverage of security has rapidly been expanding to the economic and technology fields in recent years, in order to address challenges to the national security in the economic field, the "Economy Group" was set up in the Secretariat in April 2020. The Secretariat has many civilians and uniformed personnel of the Ministry of Defense (MOD) with concurrent posts, who are engaged in the planning and designing of policies, as well as the utilization of respective specialized knowledge. In addition, global military trends and other information are shared in a timely manner.

The enhanced ability to formulate national security policies has led to the systematic alignment of Japan's national security, and to the provision of a direction for policies with regard to new security challenges. Furthermore, individual defense policies are formulated and efforts to accelerate decision-making are made based on the basic guidelines discussed at the National Security Council, and this is contributing significantly to improved development and implementation of policies within the MOD.

 See Fig. II-3-1 (Organization of the National Security Council)

Fig. II-3-1 Organization of the National Security Council



Section 2

Organization of the MOD/Self-Defense Forces (SDF)

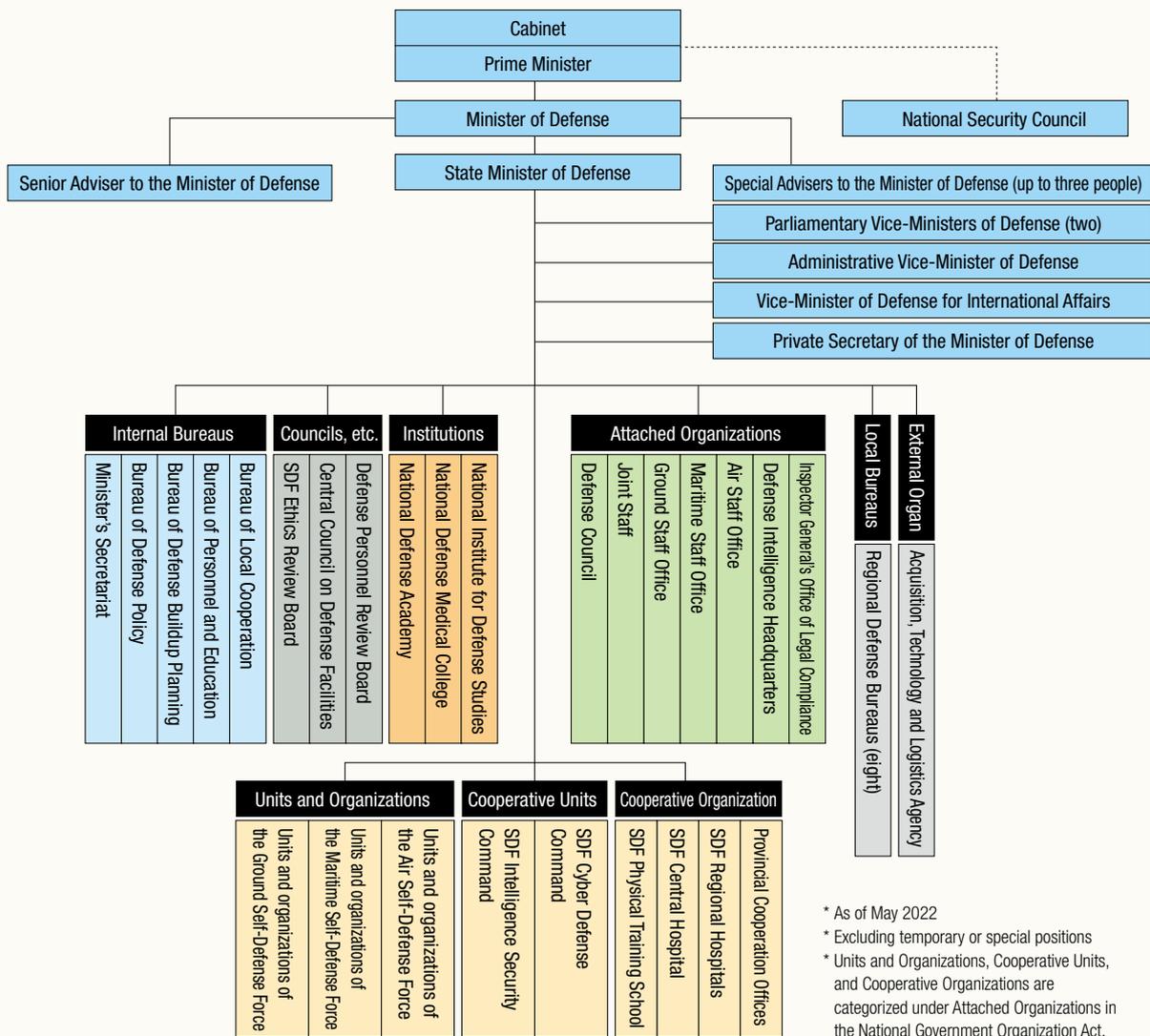
1 Organizational Structure Supporting Defense Capability

1 Organization of the MOD/Self-Defense Forces (SDF)

To fulfill their mission of defending Japan, the MOD/SDF¹ consists of various organizations, mainly the Ground, Maritime, and Air Self-Defense Forces as armed forces.

- See Fig. II-3-2-1 (Organizational Chart of the MOD/SDF)
- Fig. II-3-2-2 (Outline of the MOD/SDF)
- Fig. II-3-2-3 (Organizational Diagram of the Self-Defense Forces)
- Fig. II-3-2-4 (Location of Principal SDF Units (for illustrative purposes) (As of March 31, 2021))

Fig. II-3-2-1 Organizational Chart of the MOD/SDF



* As of May 2022
 * Excluding temporary or special positions
 * Units and Organizations, Cooperative Units, and Cooperative Organizations are categorized under Attached Organizations in the National Government Organization Act.

¹ The MOD and the SDF form a single organization. Whereas the term "Ministry of Defense" refers to the administrative aspects of the organization, which manages and operates the GSDF, MSDF, and ASDF, the term "SDF" refers to the operational aspects of the organizations whose mission is the defense of Japan.

Fig. II-3-2-2	Outline of the MOD/SDF	
Organization	Outline	
Internal Bureaus	<ul style="list-style-type: none"> ● Responsible for basic policy relating to the duties of the SDF (defense and security affairs, basic conduct of the SDF [political and administrative affairs such as planning and drafting of laws and regulations or government-level policies], personnel affairs, budgets, etc.) ● Composed of the Bureau of Defense Policy, Bureau of Defense Buildup Planning, Bureau of Personnel and Education, and Bureau of Local Cooperation, in addition to the Minister's Secretariat 	
Joint Staff (JS)	<ul style="list-style-type: none"> ● A staff organization for the Minister of Defense concerning the operation of the SDF ● Responsible for making plans on defense and security affairs concerning joint operation and making action plans ● The Minister's commands concerning the operations of the SDF are delivered through the Chief of Staff, JS and orders concerning operations of the SDF are executed by the Chief of Staff, JS. 	
Ground Staff Office Maritime Staff Office Air Staff Office	<ul style="list-style-type: none"> ● Staff organizations for the Minister of Defense concerning the duties of each SDF unit ● Responsible for making plans on defense and security affairs of each SDF unit and making plans on buildup of defense capabilities, education and training, etc. 	
GSDF	<ul style="list-style-type: none"> ● Ground Component Command <ul style="list-style-type: none"> • Composed mainly of Airborne Brigades, Amphibious Rapid Deployment Brigades, etc. • Assumes unified command over GSDF troops. ● Regional Armies <ul style="list-style-type: none"> • Composed of multiple divisions and brigades, and other directly controlled units (such as engineer brigades and antiaircraft artillery groups) • There are five regional armies, each mainly in charge of the defense of their respective regions ● Divisions and Brigades <ul style="list-style-type: none"> • Composed of combat units, combat support units, logistics support units and others 	
MSDF	<ul style="list-style-type: none"> ● Self-Defense Fleet <ul style="list-style-type: none"> • Consists of key units such as the Fleet Escort Force, the Fleet Air Force (consisting of fixed-wing patrol aircraft units and such), and the Fleet Submarine Force • Responsible for the defense of sea areas surrounding Japan primarily through mobile operations ● Regional Districts <ul style="list-style-type: none"> • There are five regional districts who mainly protect their responsible territories and support the Self-Defense Fleet 	
ASDF	<ul style="list-style-type: none"> ● Air Defense Command <ul style="list-style-type: none"> • Composed of four air defense forces • Primarily responsible for general air defense duties ● Air Defense Force <ul style="list-style-type: none"> • Composed of key units such as air wings (including fighter aircraft units and others), the Aircraft Control and Warning Wing (including aircraft warning and control units), and Air Defense Missile Groups (including surface-to-air guided missile units and others) 	
National Defense Academy of Japan	<ul style="list-style-type: none"> ● An institution for the cultivation of future SDF personnel ● Offers a science and engineering postgraduate course and a comprehensive security postgraduate course equivalent to master's or doctoral degree from a university (undergraduate and postgraduate courses) 	
National Defense Medical College	<ul style="list-style-type: none"> ● An institution for the cultivation of future SDF medical personnel ● An institution for the cultivation of future SDF officers who are public nurses, nurses, and SDF engineering personnel ● Offers a graduate medical course equivalent to PhD programs at medical universities based on the School Education Law 	
National Institute for Defense Studies	<ul style="list-style-type: none"> ● Organization that functions as a "think tank" of the Ministry of Defense ● Conducts basic research and studies related to the administration and operation of the SDF <ul style="list-style-type: none"> • Conducts research and studies on security • Conducts research and compiles data on military history • Management and publication of data on military history ● Educates and trains SDF personnel and other senior officials 	
Defense Intelligence Headquarters	<ul style="list-style-type: none"> ● Central intelligence organization of the Ministry of Defense, which collects, analyzes and reports on information related to Japan's national security <ul style="list-style-type: none"> • Collects various military information including imagery and geographical information, signal data, and publicized information; comprehensively analyzes and assesses the information; and provides intelligence to related organizations within the ministry and relevant ministries and agencies • Consists of the Directorate for Administration, Directorate for Planning, Directorate for Joint Intelligence, Directorate for Assessment, Directorate for Geospatial Intelligence, and Directorate for Signal Intelligence, as well as six communication sites 	
Inspector General's Office of Legal Compliance	<ul style="list-style-type: none"> ● Organization that inspects overall tasks of the Ministry of Defense and the SDF from an independent position 	
Regional Defense Bureau (eight locations nationwide)	<ul style="list-style-type: none"> ● Local Bureaus in charge of comprehensive defense administration in regional areas <ul style="list-style-type: none"> • Ensures understanding and cooperation of local public organizations, and conducts cost audit, supervision, and inspection related to acquisition of defense facilities, management, construction, taking measures concerning neighborhood of the base, and procurement of equipment • Consists of eight Regional Defense Bureaus (Hokkaido, Tohoku, North Kanto, South Kanto, Kinki-Chubu, Chugoku-Shikoku, Kyushu and Okinawa) 	
Acquisition, Technology and Logistics Agency	<ul style="list-style-type: none"> ● An external bureau in charge of effective and efficient procurement of defense equipment and international defense equipment and technology cooperation <ul style="list-style-type: none"> • Implementation of constant project management throughout the life cycle of defense equipment from an integrated perspective • Smooth and prompt reflection of each unit's operational needs in equipment procurement • Proactive initiatives in new areas (further internationalization of defense equipment and investments in advanced technological research, etc.) • Achievement of procurement reform and, at the same time, maintenance and strengthening of defense production and of the technological and industrial bases of defense 	



MOVIE: Overview of SDF Activities (MOD Video Record 2021)

URL: <https://www.youtube.com/watch?v=Tglrn8gxALI>

Fig. II-3-2-3 Organizational Diagram of the Self-Defense Forces

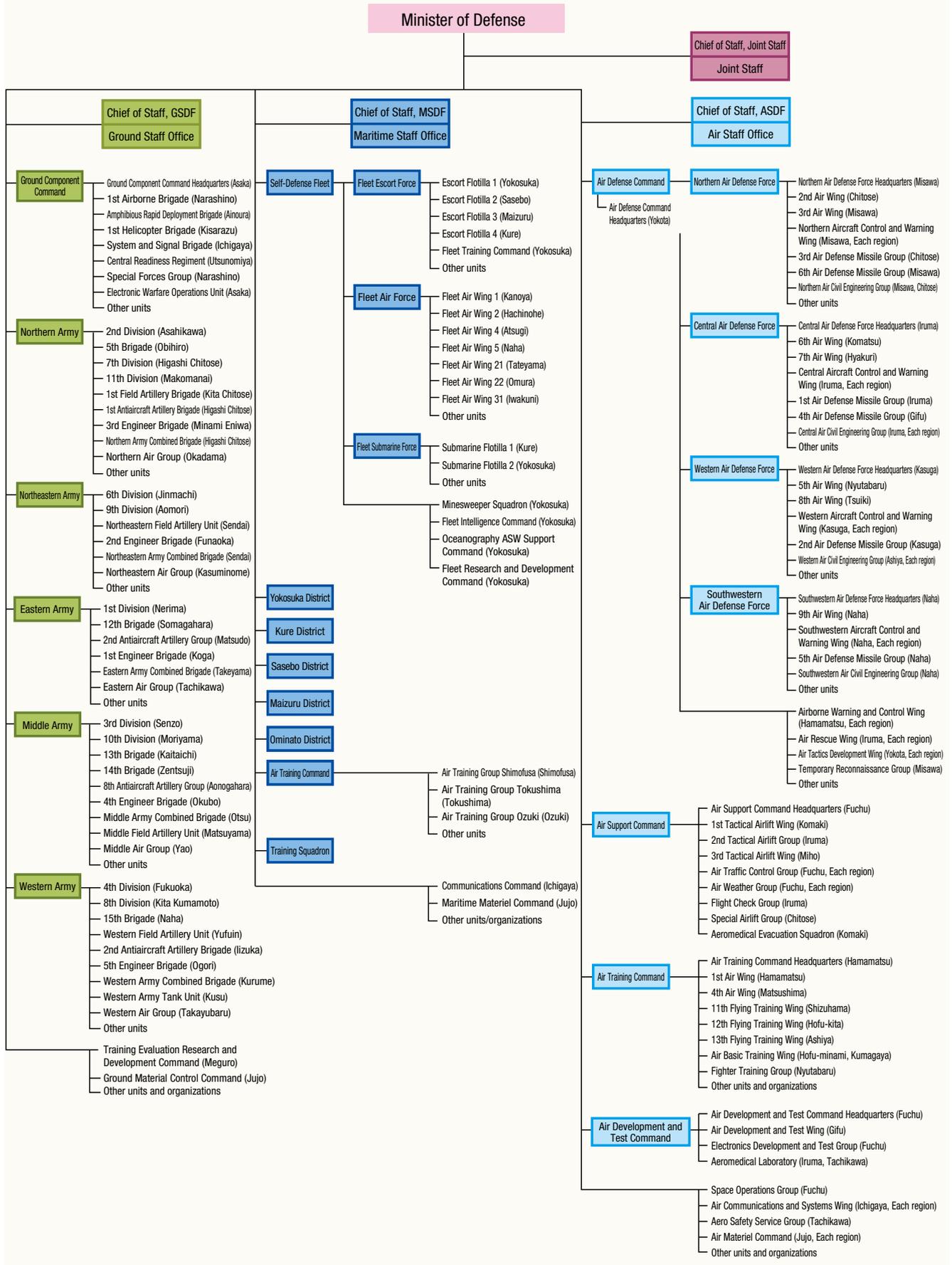
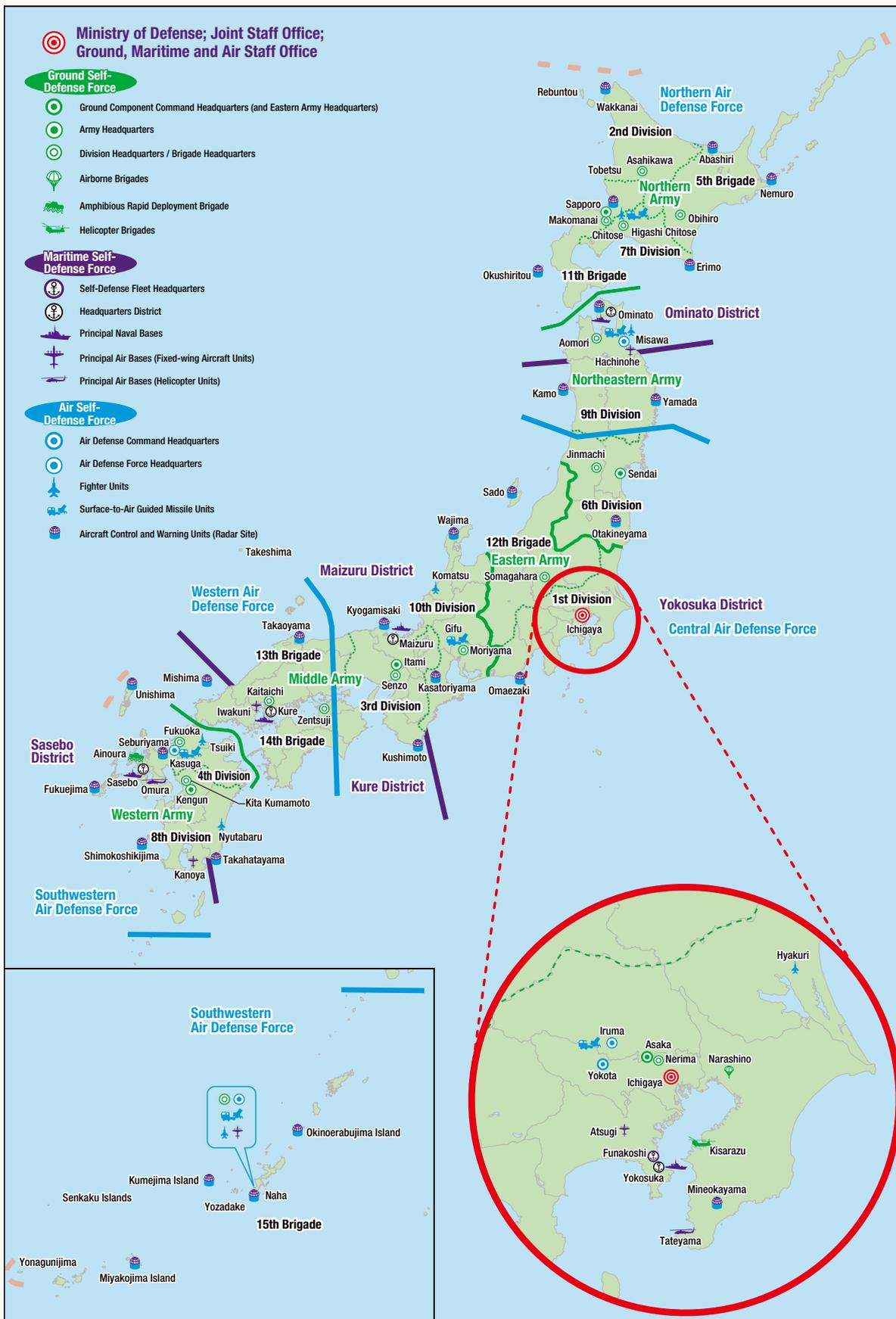


Fig. II-3-2-4

Location of Principal SDF Units (for illustrative purposes) (As of March 31, 2021)



2 Systems to Support the Minister of Defense

The Minister of Defense takes charge of and manages the matters related to the defense of Japan as the competent minister, and is in overall charge of the SDF duties in accordance with the provisions of the SDF Law. The Minister is supported by the State Minister of Defense, the Parliamentary Vice-Ministers of Defense (two) and the Senior Adviser to the Minister of Defense. There are also the Special Advisers to the Minister of Defense, who advise the Minister of Defense, and the Defense Council, which deliberates on basic principles concerning affairs under the Ministry's jurisdiction. Furthermore, there are the Administrative Vice-Minister of Defense, who organizes and supervises the administrative affairs of each bureau and organization to support the Minister of Defense, and the Vice-Minister of Defense for International Affairs, who is responsible for the overall coordination of duties such as those related to international affairs.

Moreover, the Internal Bureaus of the MOD, Joint Staff, Ground Staff Office, Maritime Staff Office, Air Staff Office, and the Acquisition, Technology & Logistics Agency (ATLA), as an external bureau, have been established in the MOD. The Internal Bureaus of the MOD are responsible for basic policy relating to the duties of the SDF. The Directors-General of the Minister's Secretariat and the Directors-General of each Bureau within the Internal Bureaus, along with the Commissioner of ATLA who is in charge of defense equipment administration, support the Minister of Defense by providing assistance from a policy perspective.

The Joint Staff is a staff organization for the Minister of Defense concerning the operation of the SDF. The Chief of Joint Staff provides centralized support for the operations

of the SDF for the Minister of Defense from a military expert's perspective. The Ground Staff, Maritime Staff and Air Staff are the staff organizations for the Minister of Defense concerning their respective services except operations of the SDF, with the Chiefs of Staff for the Ground Self-Defense Force (GSDF), the Maritime Self-Defense Force (MSDF) and the Air Self-Defense Force (ASDF) acting as the top ranking expert advisers to the Minister of Defense regarding these services.

In this manner, the MOD has ensured that the support for the Minister from a policy perspective and the support for the Minister from a military expert's perspective are provided in a well-balanced manner like the two wheels of a cart, so to speak, in order for the Minister of Defense to appropriately make decisions.

 **See** Chapter 1, Section 2-3-4 (Securing Civilian Control)

3 Base of Defense Administration in Regional Areas

The MOD has Regional Defense Bureaus in eight locations across the country (Sapporo City, Sendai City, Saitama City, Yokohama City, Osaka City, Hiroshima City, Fukuoka City, and Kadena Town) as its local branch in charge of comprehensive defense administration.

In addition to implementing measures to harmonize between defense facilities and regional societies and inspecting equipment, the Regional Defense Bureaus carry out various measures to obtain the understanding and cooperation of both local governments and local residents towards the MOD/SDF activities.

 **See** Part IV, Chapter 6, Section 1 (Measures to Harmonize with Regional Society and the Environment)



MOVIE: [GSDF Official] Latest PR Video: The GSDF evolves to a new domain
~Towards the construction of a Multi-domain Defense Force~

URL: <https://www.youtube.com/watch?v=WzWSOKSknc4>



MOVIE: MSDF Official PR Video "The route towards the continuous future of the sea"

URL: <https://youtu.be/6yfm2I3bgv4>



MOVIE: ASDF: The seven units protecting the Japanese sky

URL: <https://www.youtube.com/watch?v=AvUJYASaPUk>



MOVIE: Acquisition, Technology and Logistics Agency PR Video

URL: <https://www.youtube.com/watch?v=ngewt8h7Vos>



2 Joint Operations System of the SDF

In order to rapidly and effectively fulfill the duties of the SDF, the MOD/SDF has adopted the joint operations system in which the GSDF, the MSDF, and the ASDF operate integrally. Furthermore, it works toward building an architecture that is capable of realizing cross-domain operations including new domains, which are space, cyberspace, and electromagnetic spectrum.

1 Outline of Joint Operations System

(1) Role of Chief of Joint Staff

- a. The Chief of Joint Staff develops a joint operations concept for SDF operations, and centrally supports the MOD on SDF operations from a military expert's perspective.
- b. The Minister's commands concerning the operations of the SDF are delivered through the Chief of Joint Staff, and orders concerning operations of the SDF are executed by the Chief of Joint Staff. In doing this, the Minister's commands and orders are delivered through the Chief of Joint Staff not only in cases where a joint task force² is organized, but also in cases

where a single SDF unit is employed to respond.

(2) Relationship between Chief of Joint Staff, and Other Chiefs of Staff

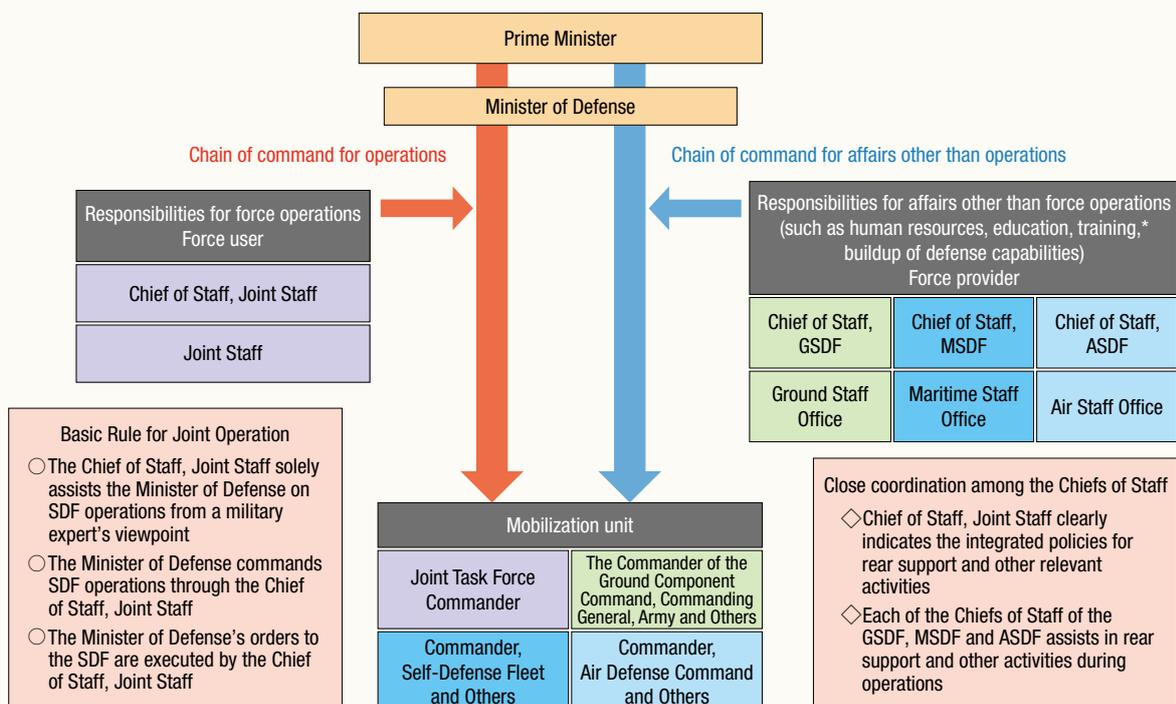
The Joint Staff undertakes functions relating to the operations of the SDF, while the Ground, Maritime and Air Staff Offices undertake functions for unit maintenance, such as personnel affairs, building-up defense capability, and education and training.

See Fig. II-3-2-5 (Operational System of the SDF and Roles of the Chief of Joint Staff and the Chiefs of Staff of the Ground, Maritime, and Air Self-Defense Forces)

2 Strengthening Joint Operational Functions

In order to realize cross-domain operations based on the Current NDPG, the Joint Staff's posture designed for efficient force operations and for new domains is being strengthened, thereby enabling swift and effective exercise of the SDF's total capabilities. In addition, the future framework for joint operations is being examined.

Fig. II-3-2-5 Operational System of the SDF and Roles of the Chief of Joint Staff and the Chiefs of Staff of the Ground, Maritime, and Air Self-Defense Forces



*The Chief of Staff, Joint Staff is responsible for joint training

² This applies to the case in which a special unit is organized to carry out a specific duty, or the required troops are placed partly under the authority of a commander outside of their usual command structure based on the stipulations of Article 22, paragraphs 1 or 2 of the SDF Law, and refers to units made up of more than two units of the GSDF, the MSDF, or the ASDF.

Section 1

Build-Up of Defense Capability in FY2022

The build-up of defense capability in FY2022 involves a wide-scale strengthening of necessary defense capabilities, including capabilities in new fields such as space, cyberspace and electromagnetic spectrum, as well as capabilities in maritime and air domains, comprehensive air and missile defense capabilities to counter many kinds of airborne threats, stand-off defense capabilities, maneuver and deployment capabilities, securing ammunition, and maintaining equipment, to build a Multi-domain Defense Force.

In addition, to ensure technological superiority in the defense field, Japan will strengthen both research and development into potential game-changing technology, etc. and the defense industrial base, as well as bolstering its personnel base and security cooperation with other countries, including the Japan-U.S. Alliance.

On this occasion, in order to accelerate the strengthening of defense capabilities from FY2021,

Japan has been implementing projects that were originally scheduled to be included in the FY2022 annual budget ahead of schedule, combining the FY2021 supplementary budget and the FY2022 annual budget as one and allocating this to the “Defense-Strengthening Acceleration Package.”

Also, resources are allocated in a flexible and focused manner without adhering to previous budgets or allocations of personnel. Moreover, the SDF will be further integrated across all fields, and organizations and equipment will be optimized without sliding into vertical division.

In addition, Japan will strive to ensure even greater efficiency and streamlining in consideration of increasingly severe fiscal conditions and other factors.

 **See** Fig. II-4-1 (Main Projects of Build-up of Defense Capabilities in FY2022 (Priorities in Strengthening Capabilities Necessary for Cross-domain Operations))



Build-up of defense capability in FY2022

Fig. II-4-1

Main Projects of Build-up of Defense Capabilities in FY2022 (Priorities in Strengthening Capabilities Necessary for Cross-domain Operations)

Capabilities that should be acquired and strengthened	Outline
Capabilities in Space Domain	<ul style="list-style-type: none"> ○ Maintenance of space situational awareness (SSA) satellites ○ Procurement of SSA laser ranging devices ○ Maintenance of the SSA system, etc. ○ Strengthening information-gathering capability using outer space ○ Reorganization of the Space Operations Group, etc.
Capabilities in Cyber Domain	<ul style="list-style-type: none"> ○ Reinforcing SDF cyber units ○ Securing and developing of cyber workforce ○ Utilization of relevant cutting-edge cyber technologies in cyber domain ○ Improving system resilience, etc.
Capabilities in the Electromagnetic Spectrum Domain	<ul style="list-style-type: none"> ○ Reinforcement of the capabilities for neutralizing the radar of an opponent invading Japan <ul style="list-style-type: none"> ● Development of stand-off electronic warfare aircraft ○ Strengthening of capability to minimize electromagnetic jamming from an opponent attempting to invade Japan <ul style="list-style-type: none"> ● Procurement of F-35A (×8) and F-35B (×4) fighters with superior electronic protection capability ○ Research for the introduction of emerging technologies in the electromagnetic spectrum domain <ul style="list-style-type: none"> ● Demonstration of high-power microwave (HPM) irradiation technology ○ Strengthening intelligence capability related to the electromagnetic spectrum, etc.
Capabilities in Maritime and Air Domains	<ul style="list-style-type: none"> ○ Improvement of capabilities of JADGE (Japan Aerospace Defense Ground Environment) ○ Procurement of Minesweeping and Transport Helicopter (MCH-101) (1) ○ Refurbishment of SH-60K patrol helicopter to rescue specification ○ Construction of destroyers (2), submarine (1), minesweeper (1), oceanographic research ship (1), and ocean surveillance ship (1) ○ Refurbishment of Izumo-class destroyers ○ Establishment of the Tactical Reconnaissance Group (tentative name) ○ Japan-led development of F-X, etc.
Stand-off defense capability	<ul style="list-style-type: none"> ○ Development of type-12 surface-to-ship guided missile models with improved abilities, etc.
Comprehensive air and missile defense capability	<ul style="list-style-type: none"> ○ Research on demonstration of detection and tracking of supersonic glide weapons ○ Procurement of standard missiles SM-6 and advanced capability interceptors PAC-3MSE ○ Research on future super railguns, etc.
Maneuver and deployment capability	<ul style="list-style-type: none"> ○ Procurement of Type-16 mobile combat vehicles (×33) ○ Procurement of transport ships (2) ○ Deployment of units on Ishigakijima Island ○ Maneuver deployment training to improve deterrence and response capabilities, etc.
Utilization of UAVs and response to UAVs	<ul style="list-style-type: none"> ○ Research on protection from small attack UAVs ○ Maintenance of an unmanned mine clearance system, etc.
Sustainability and resilience	<ul style="list-style-type: none"> ○ Procurement of various ammunition necessary for continuous unit operation ○ Promotion of measures against aging and earthquake proofing of SDF facilities ○ Ensuring necessary expenses for sustainment and maintenance of equipment, etc.

Section 2

Defense-Related Expenditures

1 Overview of Defense-Related Expenditures

Defense-related expenditures include expenses for improving defense capabilities and maintaining and managing the SDF, as well as expenses necessary for the implementation of measures against neighborhood affairs in the vicinity of defense facilities.

With the regional security environment surrounding Japan growing more severe at an unprecedented pace, the FY2022 annual budget has been combined with the FY2021 supplementary budget as one integrated “Defense-Strengthening-Acceleration Package” to accelerate the implementation of various projects and significantly enhance the necessary defense capabilities.

In addition, with respect to R&D expenses, Japan has greatly increased investments into potentially

game-changing cutting-edge technologies, along with developing F-X and the like, allocating the largest ever 291.1 billion yen, an increase of 79.6 billion yen (37.6%).

The FY2022 annual budget¹ has been increased over 10 consecutive years to become the largest ever, totaling 5.1788 trillion yen; an increase of 55.3 billion yen (1.1%) compared to the previous fiscal year. Including the realignment of U.S.² armed forces and other factors, it totals 5.4005 trillion yen.³

 See Fig. II-4-2-1 (Comparison between Defense-Related Expenditures (Initial Budget) of FY2021 and FY2022)
Fig. II-4-2-2 (Trend in Defense-Related Expenditures (Initial Budget))

Fig. II-4-2-1

Comparison between Defense-Related Expenditures (Initial Budget) of FY2021 and FY2022

(Unit: 100 million yen)

Service	FY2021	FY2022	FY2022	
			Fiscal YOY growth	
Annual expenditure (note)	51,235	51,788	553	1.1%
Personnel and food provisions	21,919	21,740	▲179	▲0.8%
Material expenses	29,316	30,048	732	2.5%
Future obligation (note)	52,784	53,342	558	1.1%
New contracts	24,090	24,583	493	2.0%
Existing contracts	28,694	28,759	65	0.2%

Note: 1. The figures above do not include SACO-related expenses and the U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities), etc. If these are included, the total amounts of defense-related expenditures are 5,342.2 billion yen for FY2021 and 5,400.5 billion yen for FY2022; and for future obligation, 5,533 billion yen for FY2021 and 5,864.2 billion yen for FY2022.

2. The budget amounts include expenditures pertaining to the Digital Agency.

3. Figures may not add up to the total due to rounding.

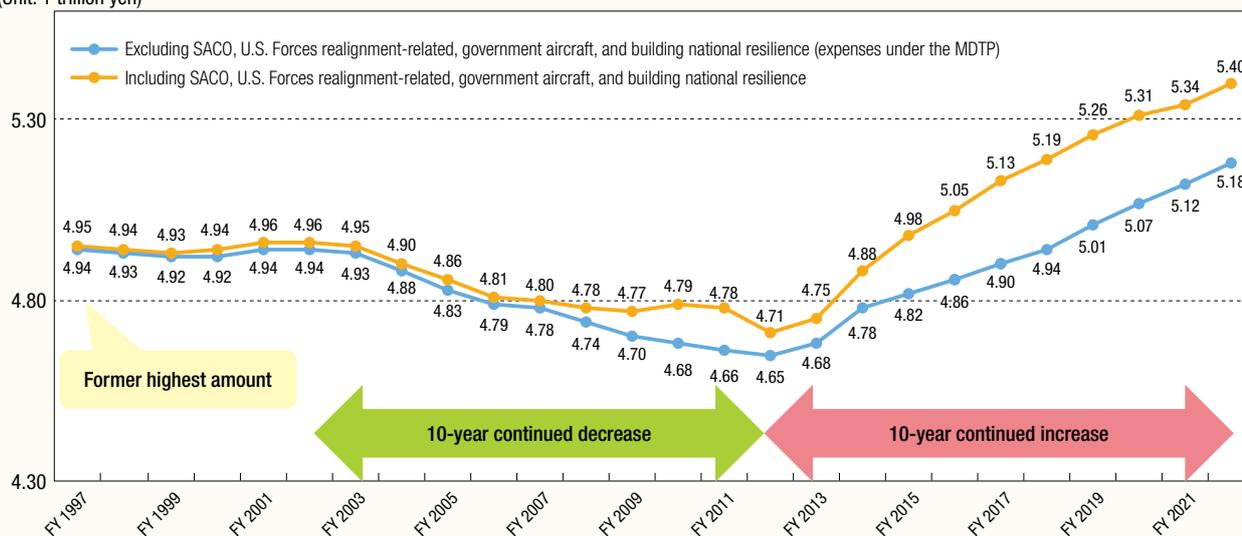
1 FY2022 defense-related expenditures include expenditures pertaining to the Digital Agency.

2 These expenditures are the portion of the Special Action Committee on Okinawa (SACO)-related expenditures, U.S. armed forces realignment-related expenditures for mitigating local impact, and expenditures following the introduction of new government aircraft.

3 Combining the FY2022 annual budget and the FY2021 supplementary budget amounts to 5.8661 trillion yen, and including the U.S. Forces realignment-related expenses, amounts to 6.1744 trillion yen. The estimate of defense expenditures as % of GDP based on the GDP of 564.6 trillion yen from the Fiscal 2022 Economic Outlook (approved by Cabinet Decision on January 17, 2022) is 1.09 (note that the target periods for the defense-related expenditures total and the GDP are different).

Fig. II-4-2-2 Trend in Defense-Related Expenditures (Initial Budget)

(Unit: 1 trillion yen)



2 Breakdown of Defense-Related Expenditures

Defense-related expenditures are broadly classified into “personnel and food provision expenses,” which cover items such as wages and meals for SDF personnel, and “material expenses,” which finance the repair and maintenance of equipment, the purchase of fuel, the education and training of SDF personnel and the procurement of equipment and others. Material expenses are further classified into “obligatory outlay expenses,”⁴ which are paid based on contracts concluded in previous fiscal years, and “general material expenses,” which are paid under current-year contracts. Material expenses are also referred to as “program expenses,” and since general material expenses include repair costs for equipment, education and training expenses for personnel, and the purchase of fuel, they are referred to also as “activity expenses.” The MOD terms this classification method as “classification by expenses.”

Personnel and food provision expenses as well as obligatory outlay expenses, both of which are mandatory expenses, account for 80% of the total defense-related

budget. The remaining 20% of the budget includes spending for repairing equipment and for implementing measures to alleviate the impact on local communities hosting U.S. bases in Japan. As such, a high percentage of the budget is allocated for maintenance purposes. For this reason, the breakdown of the defense-related expenditures cannot be easily altered in a significant manner on a single-year basis.

As for expenditures by purpose of use, about 40% is allocated to salaries and meals for the SDF, and another 20% is for fuel, maintenance and management of vessels and aircraft. Purchase of new equipment is less than 20%.

See Fig. II-4-2-3 (Relationship between Annual Expenditure and Future Obligation Concerning New Contracts)
 Fig. II-4-2-4 (Classification of Defense-Related Expenditures by Purpose of Use (FY2022))

In addition to the annual budget expenditure, the amount of future obligations concerning new contracts also indicates payments for the following year and

⁴ Some projects for build-up of defense capabilities extend over multiple years. In these cases, the fiscal year in which the contract is concluded is different from the fiscal year in which the payment to the contractor is made. Therefore, the maximum obligation over later fiscal years is first allocated to the budget as a contract resulting in a Treasury obligation (a type of budget that only grants the authority to incur obligations; the contracts can be concluded, but payment cannot be made). Based on such budgeting, in the fiscal year in which the construction is completed or the equipment is procured, expenses necessary for payment are allocated as budget expenditure, in principle (type of budget that grants authorities to incur obligations and make payment; the contracts can be concluded and the payment can be made). Budget expenditure for payments incurred under contracts concluded in previous fiscal years is called “obligatory outlay expenses,” while expenditure for future fiscal years is termed “future obligation.”

For cases where a continued project over multiple years is necessary, there is also a system of continuing expenditure as a means to grant the authority to incur obligations and make payment over multiple years by obtaining a resolution of the Diet integrally for the total cost and the amounts of yearly installments for the project in advance.

beyond (the amount of future obligation arising in the applicable fiscal year). In the build-up of defense capabilities, it is common to take multiple years from contract to delivery or completion, in areas such as the procurement of vessels, aircraft, and other primary equipment, as well as the construction of buildings such as aircraft hangars and barracks. Concerning these, contracts covering multiple fiscal years are concluded in the fiscal year in question, and payments for the next

fiscal year and beyond (in principle, within five years) are promised in advance at the time of concluding the contract (the total of general material expenses and future obligation concerning new contracts is the total amount of the contract amount concluded in the fiscal year in question (scale of operations), and is referred to as the “contract basis”).

See Part IV, Chapter 4, Section 3-1 (Project Management throughout Equipment Life Cycle)

Fig. II-4-2-3 Relationship between Annual Expenditure and Future Obligation Concerning New Contracts

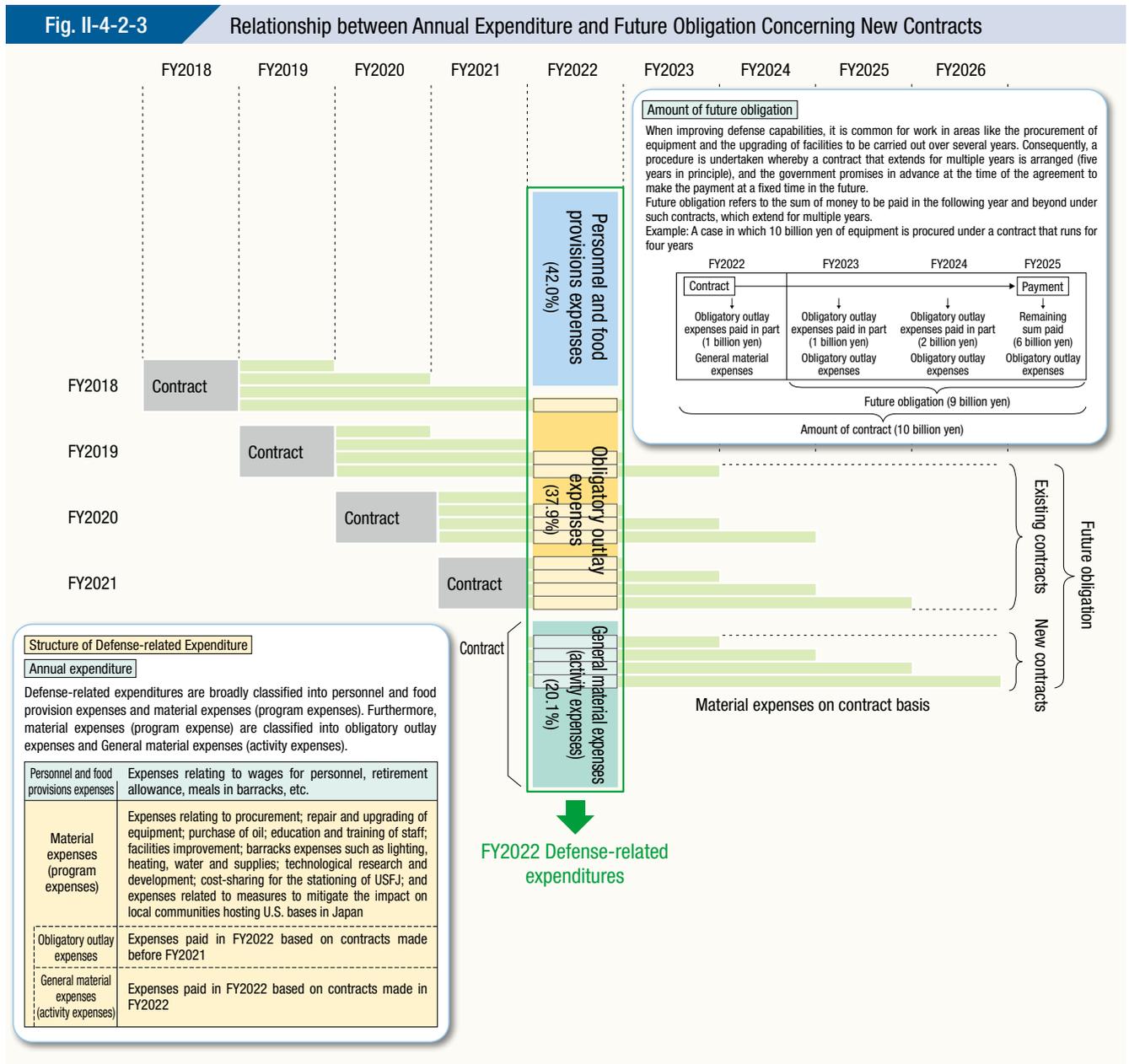
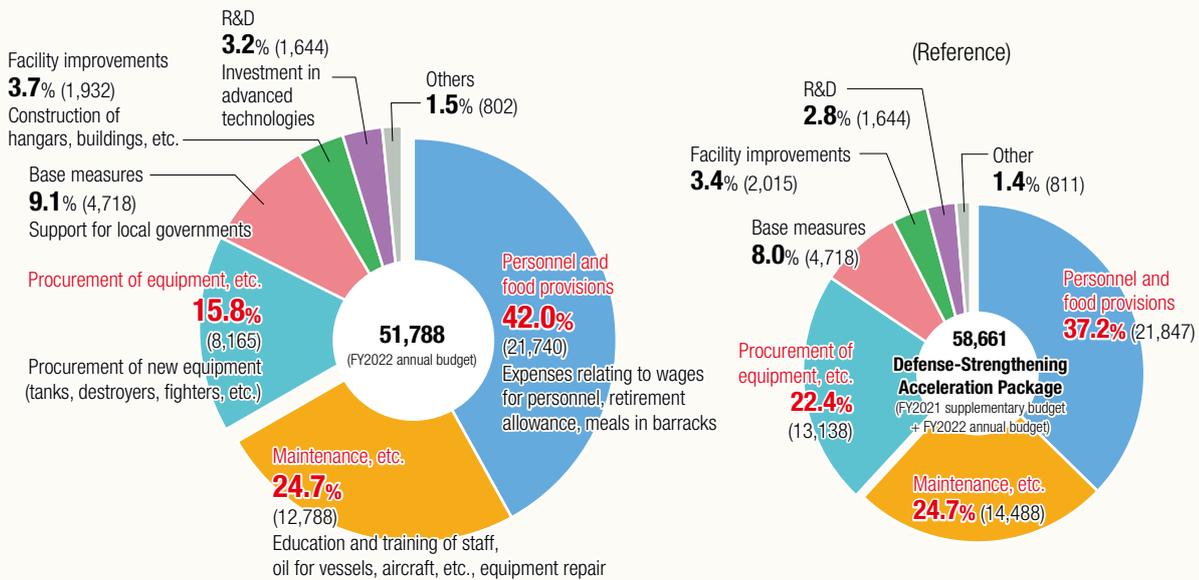


Fig. II-4-2-4

Classification of Defense-Related Expenditures by Purpose of Use (FY2022)



*Excluding U.S. Forces realignment-related expenses, etc.

3 Initiatives for Increasing the Efficiency of Procurement

In order to achieve further efficiency and streamlining, the Current MTDP sets forth that the MOD will work to secure substantial financial resources through suspension of the use of equipment whose importance has decreased, review of projects of low cost-effectiveness, and optimization of equipment procurement such as thoroughgoing cost management and control and efficient equipment procurement including long-term contracts.

In the FY2022 budget, the MOD aims to realize a cost reduction of approximately 439 billion yen by implementing these streamlining measures. Concrete initiatives introduced in the FY2022 budget are as follows.

- Reduction of approximately 211.7 billion yen through project review, including suspension of the use of equipment of lowered priority
- Reduction of approximately 97.4 billion yen

through communalization and optimization of specifications, including use of convertible modules and civilian goods

- Reduction of approximately 12.9 billion yen through efficiency improvement by bulk procurement and joint procurement
- Reduction of approximately 1.9 billion yen through making use of long-term contracts that run over five years
- Reduction of approximately 115.2 billion yen through scrutiny of prices and related costs of equipment

In addition, efforts are being made to ensure revenue streams, including selling unwanted articles, opening the remains of the Imperial General Headquarters underground bunker in Ichigaya district to the public for a fee, and charging for some airshows and Fuji Firepower exercises.

4 Comparison with Other Countries

It is not possible to accurately compare the amounts of defense expenditures of countries due to a number of factors: there is no internationally unified definition of defense expenditures in the first place; even if defense expenditures were publicly disclosed, their overall amount or their breakdown is sometimes unclear; and the budget system varies by country.

On such basis, if Japan's defense-related expenditures and those of other countries officially published by each government were converted into dollar amounts, using the purchasing power parity⁵ of each country reported by the Organisation for Economic Co-operation and Development (OECD), the results would be as shown in Fig. II-4-2-5 (The Defense Expenditures of Major Countries [FY2021]). Compared to the other G7 countries, as well as Australia and the Republic of Korea (ROK), Japan's defense-related expenditures as a percentage of GDP rank the lowest. Also, defense expenditures per capita in Australia, the ROK, the United Kingdom, France, and Germany are about two to three times that of Japan.

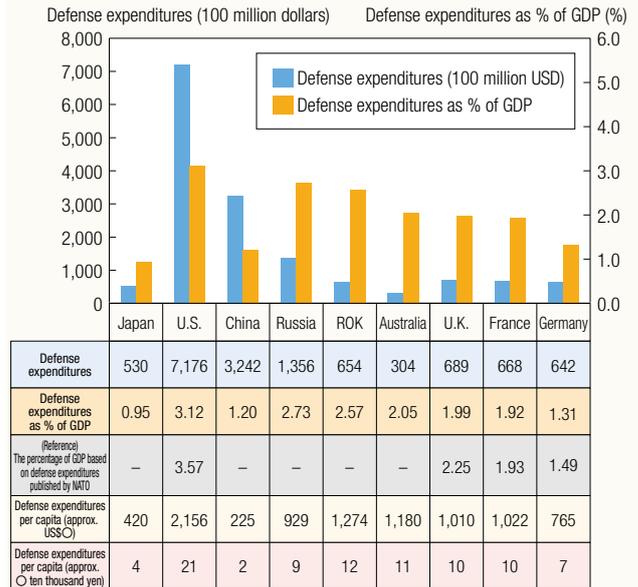
Further, North Atlantic Treaty Organization (NATO) member countries have agreed to spend a minimum of 2% of their GDP on defense by 2024, and according to a NATO's press release, eight countries including the U.S. and the U.K. exceeded 2% in 2021 (estimated).

In addition, Fig. II-4-2-6 (Changes in Defense Expenditures in Six Major Countries [logarithmic graph]) shows the trends in defense expenditures of major countries since 1998.

 See Reference 11 (Trend of Defense Expenditures of Major Countries)

Fig. II-4-2-5

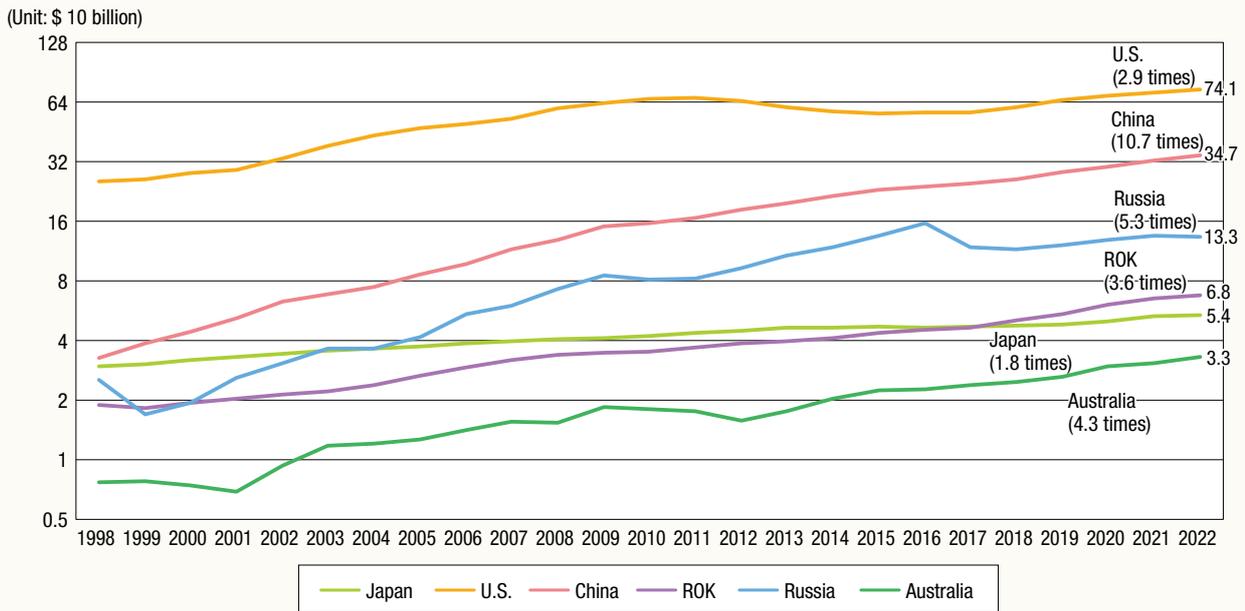
The Defense Expenditures of Major Countries (FY2021)



- Notes:
1. Defense expenditures are based on those officially published by each country and are converted to US dollars, using each country's purchasing power parity for FY2021 as published by the OECD (officially published rate as of April 2022).
(1 US dollar = 96.759441 yen = 4.18 yuan = 26.37 rubles = 808.46233 won = 1.464075 Australian dollars = 0.667865 pound = 0.713551 French euros = 0.731457 German euros)
 2. The amounts of defense expenditures published by China appear to be only part of its actual expenses for military purpose. According to analysis from the U.S. Department of Defense, China's actual defense expenditures for FY2021 are 1.1-2 times more than in its published defense budget.
 3. The percentage of GDP is calculated based on defense expenditures officially published by each country (in local currency) using the GDP of each country published by the IMF (in local currency).
 4. As defense expenditures published by NATO (which include pensions for retired veterans, etc.) may differ from those officially published by each country, the percentage of GDP based on defense expenditures published by NATO (in March 2022) does not necessarily coincide with the percentage of GDP calculated based on defense expenditures officially published by each country.
 5. Defense expenditures per capita are calculated using the populations published by the UNFPA (State of the World Population 2021).
 6. According to a SIPRI Fact Sheet (published in April 2022), global defense expenditures represented 2.2% of global GDP in 2021, and Japan's defense expenditures represented 1.1% of its GDP. Furthermore, according to the World Bank, military expenditures of OECD members represented 2.5% of their total amount of GDP in 2020.

⁵ A gauge that measures each country's ability to purchase goods and services by taking into account their respective price levels. Although there also exists a method of converting their defense expenditures into dollar amounts at respective currency rates, their dollar-based defense expenses calculated in this way do not necessarily reflect the precise value based on each country's price levels.

Fig. II-4-2-6 Changes in Defense Expenditures in Six Major Countries (logarithmic graph)



(Notes)

- Regarding the defense expenditures of the six countries, figures officially published by the government of each country were converted into US dollars amounts, using the purchasing power parity for 2021 (published by the OECD as of April 2022). The figures for 2022 were converted into US dollars using the purchasing power parity of 2021. (1 dollar = 96.759441 yen = 4.18 yuan = 26.37 rubles = 808.46233 won = 1.464075 Australian dollars)
- Japan's defense-related expenditure shows its initial budget (excluding SACO-related expenses, the U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities), and expenses for the three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience, etc.)
- The amount and year-on-year growth rate (figures rounded to one decimal place) for FY1998-FY2022 are indicated.

Column

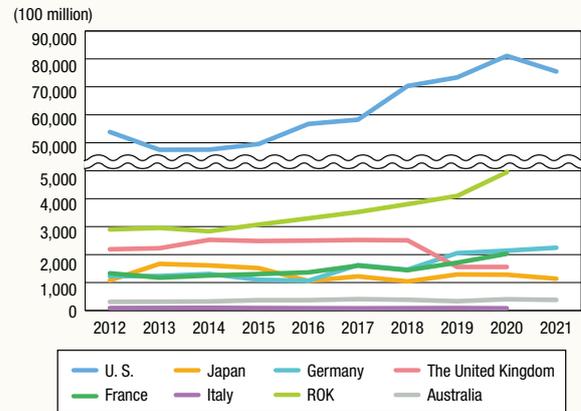
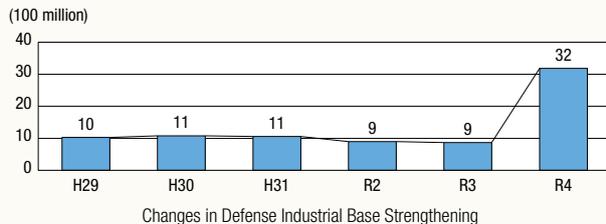
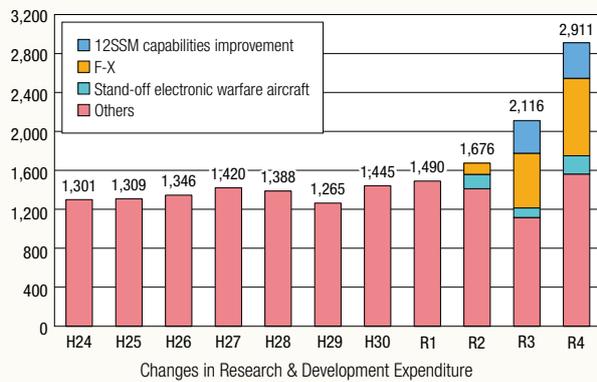
The strengthening of defense production and technological base as part of Japan's defense capabilities

The defense production and technological base of developing, producing, and maintaining equipment essential to the operations of the Self-Defense Forces (the SDF) embodies Japan's defense capabilities and it is urgently necessary to strengthen this base. In the annual budget for FY2022, we appropriated 317.3 billion yen, an increase of 80.7 billion yen (34.1%), and realized a significant increase compared with the previous fiscal year.

With regard to research and development, we secured the amount in accordance with development schedules and steadily promoted projects for F-X that will transform future warfare and for enhancing stand-off defense capability (upgraded Type 12 surface-to-ship guided missiles and stand-off electronic warfare

aircraft), and we appropriated 291.1 billion yen, an increase of 79.6 billion yen (37.6%) and the highest amount ever, in an effort to significantly increase investments in important technologies, including cutting-edge technologies that can be game-changers, such as railguns, high-power microwave, and unmanned underwater vehicles (UUV).

In addition, we also strengthened industrial policies by taking new measures, such as making the manufacturing processes of military equipment more efficient and providing support for improving cybersecurity (3.2 billion yen, an increase of 2.3 billion yen compared with the previous fiscal year).



(Reference) Defense-Related Research & Development Expenditure as a Percentage of Government Research Expenditures in Major Countries (2020)
 Japan: 1.4% U.S.: 47.1% Germany: 4.2% U.K.: 8.5% France: 8.6%
 Italy: 0.5% ROK: 16.6% Australia: 6.2%

Source: Based on "OECD: Main Science and Technology Indicators" (as of May 23, 2022)

Note: The figures are from statistics of the OECD. Special attention is needed when comparing various countries only with this data, because their definitions may vary in each country.

Changes in Defense-Related Research & Development Expenditure of Major Countries

This chapter gives an outline of the Government's responses to various contingencies as well as the operations of the SDF.

See Reference 12 (Conditions Required for Main Operations of the Self-Defense Forces [Including Diet Approval] and Authority for the Use of Weapons Concerning Main Operations of the Self-Defense Forces)

1 Responses to Armed Attack Situations, etc., and Survival-Threatening Situations

The Act on the Peace and Independence of Japan and Maintenance of the Nation and the People's Security in Armed Attack Situations, etc., and a Survival-Threatening Situation¹ is aimed at establishing a system to respond to an Armed Attack Situation and Anticipated Armed Attack Situation (Armed Attack Situations, etc.²) and Survival-Threatening Situations,³ thereby contributing to the peace and independence of Japan as well as the safety of the country and the people. The Act specifies items that should be stipulated as basic principles and basic policies (the Basic Response Plan), as well as the responsibilities of national and local governments, for responding to Armed Attack Situations, etc., and Survival-Threatening Situations.

1 Armed Attack Situations, etc. and Survival-Threatening Situations

Based on the Law for Peace and Independence of Japan and Maintenance of the Nation and the People's Security in Armed Attack Situations etc. (Armed Attack Situation Response Law), in situations such as an Armed Attack Situation, etc. or a Survival-Threatening Situation, the Government is required to adopt the Basic Response Plan, which includes the following items, and ask for approval by the Diet.

a. The Following Items concerning Situations that Need to Be Dealt with:

(1) Sequence of events of the situation, the confirmation

of occurrence of an Armed Attack Situation, etc., or a Survival-Threatening Situation, and the facts that support this confirmation

(2) When the situation is confirmed as an Armed Attack Situation, etc., or a Survival-Threatening Situation, the reason why there are no other appropriate means available to ensure Japan's survival and protect its people, and the use of force is necessary to respond to the situation

b. An Overall Plan Related to the Response

c. Important Matters Related to the Response Measures

See Fig. II-5-1-1 (Procedures for Responding to Armed Attack Situations, etc., and Survival-Threatening Situations)

2 Responses of the SDF

The Prime Minister can issue a Defense Operation order to the whole or part of the SDF when it is deemed necessary for the defense of Japan in Armed Attack Situations and Survival-Threatening Situations. Prior Diet approval is required for a Defense Operation order in principle. The SDF under Defense Operation duty is allowed to exercise the use of force only when the "three conditions for 'the use of force'" are satisfied.

3 Civil Protection

The Civil Protection Act⁴ specifies responsibilities of the national and local governments as well as measures

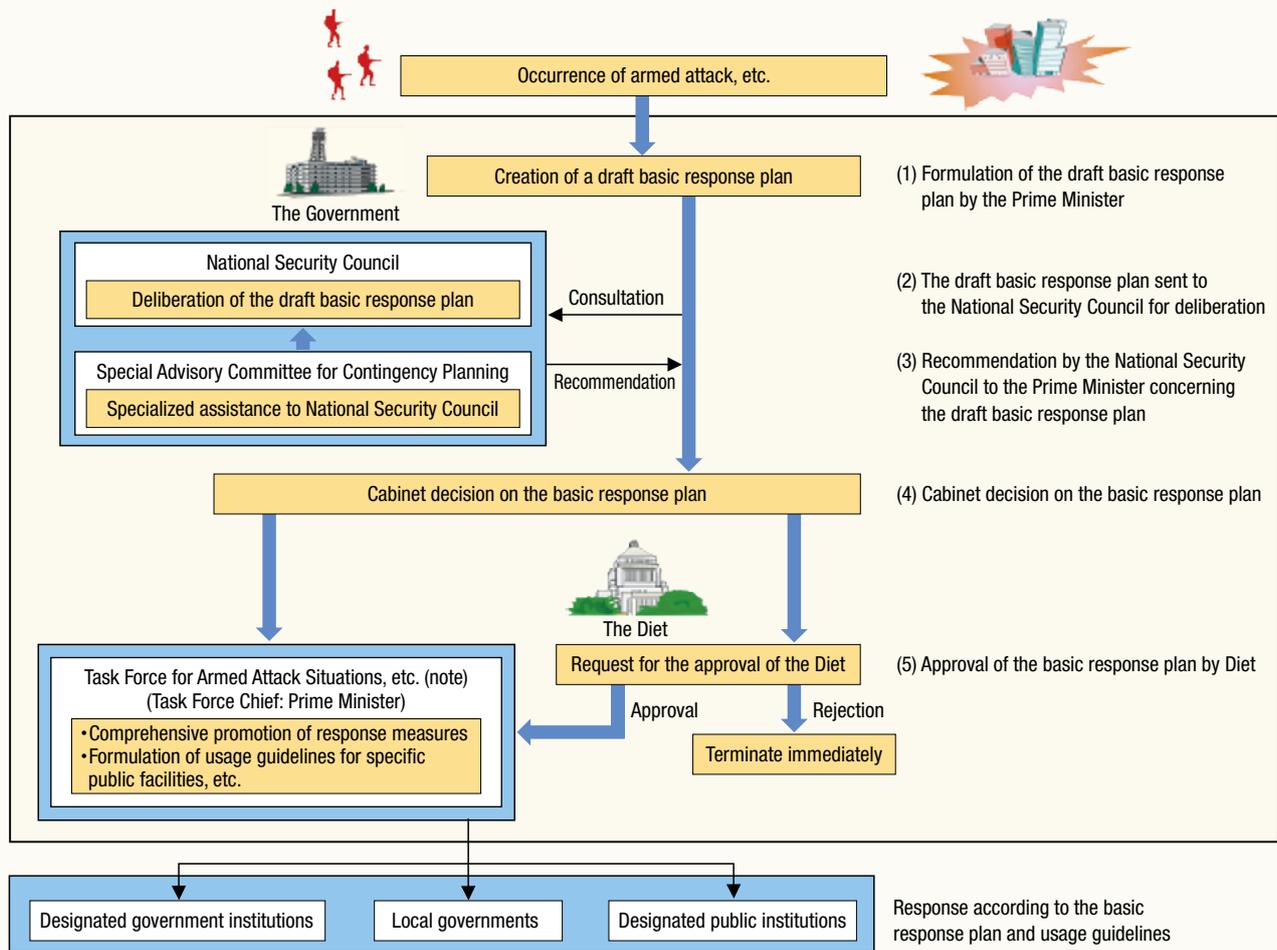
¹ Official title: Act on the Peace and Independence of Japan and Maintenance of the Nation and the People's Security in Armed Attack Situations, etc., and a Survival-Threatening Situation

² "Armed Attack Situations" refers to situations in which an armed attack against Japan from outside occurs or in which it is considered that there is an imminent and clear danger of an armed attack. "Expected Armed Attack Situations" refers to situations in which an armed attack is not yet made but the tension increased and an armed attack is expected. Both situations are collectively called "Armed Attack Situations, etc."

³ A "Survival-Threatening Situation" means a situation where an armed attack against a foreign country that is in a close relationship with Japan occurs, which in turn poses a clear risk of threatening Japan's survival and of overturning people's rights to life, liberty and pursuit of happiness fundamentally.

⁴ Official title: Act Concerning the Measures for Protection of the People in Armed Attack Situations, etc.

Fig. II-5-1-1 Procedures for Responding to Armed Attacks, etc., and Survival-Threatening Situations



Note: The Task Force will be established in the Cabinet for the comprehensive promotion of measures to respond to armed attack situations or a situation where an armed attack against a foreign country results in threatening Japan's survival

Chapter 5

Framework for Activities of the SDF and Others

for evacuation, relief, and response to the armed attack induced disasters in order to protect the lives, bodies and property of the people and to minimize the impact on the livelihood of the people in an Armed Attack Situation, etc. and emergency response⁵. If the Minister of Defense finds it unavoidable after receiving a request from prefectural governors, or receives a request from

the Task Force Chief,⁶ upon approval by the Prime Minister, the Minister of Defense can order SDF units, etc. to conduct civil protection measures or emergency response protection measures (including assisting with the evacuation of residents and immediate restoration).

See Fig. II-5-1-2 (Mechanism of Civil Protection Dispatches) Part III, Chapter 1, Section 2-5 (Initiatives Related to the Protection of Civilians)

5 A situation where actions that may kill or injure many people by using methods equivalent to those used in an armed attack, or a situation where it is recognized that the relevant actions represent a clear and present threat that necessitate an emergency response by the state.
 6 The Prime Minister assumes the position of the Director of the Crisis Management Headquarters, but these positions are regulated as separate entities.

2

Responses to Situations that Will Have an Important Influence

The Law Concerning Measures to Ensure the Peace and Security of Japan in Situations that Will Have an Important Influence on Japan's Peace and Security⁷ aims to strengthen cooperation with foreign countries to respond to the situations that will have an important influence on Japan's peace and security (Situations that Will Have an Important Influence⁸) by carrying out measures such as logistics support activities and thereby contributing to the peace and security of Japan. The Law provides the coverage and response measures as follows:

1 Coverage

The armed forces, etc., responding to situations that will have an important influence on Japan's peace

and security, which the SDF may support, are "U.S. Armed Forces engaged in activities contributing to the achievement of the objectives of the Japan-U.S. Security Treaty," "armed forces of other foreign countries engaged in activities contributing to the achievement of the objectives of the UN Charter" and "other similar organizations."

2 Response Measures to Situations that Will Have an Important Influence on Japan's Peace and Security

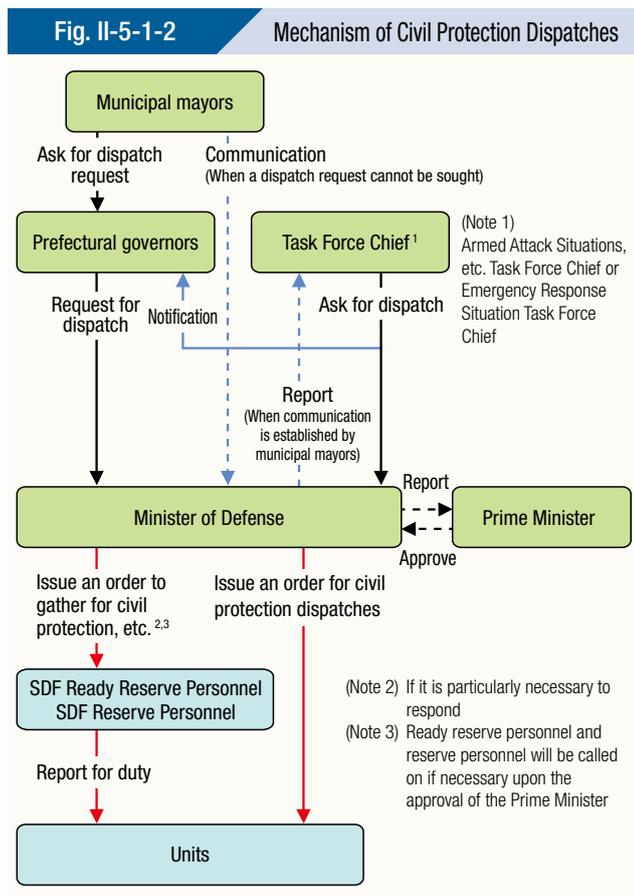
Measures to respond to situations that will have an important influence on Japan's peace and security are: (1) logistics support activities, (2) search and rescue activities, (3) ship inspection operations,⁹ and (4) other measures necessary to respond to situations that will have an important influence on Japan's peace and security.

It is possible to implement response measures in foreign territories, but only when the foreign country concerned consents.

3 Measures to Avoid Integration with the Use of Force

The following measures are set forth in order to avoid integration with the use of force by a foreign country and also to ensure the safety of SDF personnel:

- Japan does not implement support activities in the scene where a combat is actually taking place. Regarding search and rescue operations, however, when stranded personnel have been located and rescue operations have commenced, the SDF units are allowed to continue search and rescue activities as long as the safety of these units is ensured.
- the commanding officers of the SDF units, etc., order a temporary suspension of support activities if combat operations occur or are expected to occur at the site of their activities or in the vicinity.
- the Minister of Defense designates the area for



⁷ Official title: Law Concerning Measures to Ensure the Peace and Security of Japan in Situations that Will Have an Important Influence on Japan's Peace and Security.
⁸ "Situations that will have an important influence" refers to situations that will have an important influence on Japan's peace and security, including situations that, if left without response, could lead to a direct armed attack on Japan.
⁹ Operations to inspect and confirm the cargo and destination of ships (excluding warships and others) and to request, if necessary, a change of sea route, or destination port or place, for the purpose of strictly enforcing the regulatory measures concerning trade or other economic activities to which Japan is a party, conducted based on the UN Security Council resolutions or with the consent of the flag state (the state that has the right to fly its flag as prescribed in Article 91 of the UN Convention on the Law of the Sea).

implementing activities, and if it is deemed difficult to implement operations smoothly and safely in the whole or part of that area, the Minister must

promptly change the designation of the area or order the cessation of the activities being implemented there.

3 Maintenance of Public Order and Responses to Aggression that Do Not Amount to an Armed Attack

1 Public Security Operations

(1) Public Security Operations by Order

In the event of an indirect aggression or another emergency situation, the Prime Minister can order the whole or part of the SDF to deploy if it is deemed impossible to maintain public security with the general police force. In this instance, in principle, the Prime Minister must bring the order to the Diet for deliberation, and request for its approval within twenty days from the day the order has been given.

(2) Public Security Operations by Request

Upon consulting with the Public Safety Commission of the prefecture concerned, the governor of that prefecture can request the Prime Minister to dispatch units, etc., of the SDF if it is deemed unavoidable as the situation will have a serious influence on public security. Following such a request, the Prime Minister can order the SDF to mobilize when a situation calls for such action.

See Part III, Chapter 1, Section 2-3 (Response to Attacks by Guerillas, Special Operations Forces and Others)

2 Maritime Security Operations

When there is a special need to protect lives or property or maintain public security at sea, the Minister of Defense can order the SDF units to take necessary actions at sea upon approval by the Prime Minister.

See Part III, Chapter 1, Section 1-3 (Measures against Violation of Japan's Sovereignty)

3 Counter-Piracy Operations

When there is a special need to respond to acts of piracy, the Minister of Defense may order SDF units to conduct operations at sea against such acts upon approval by the Prime Minister.

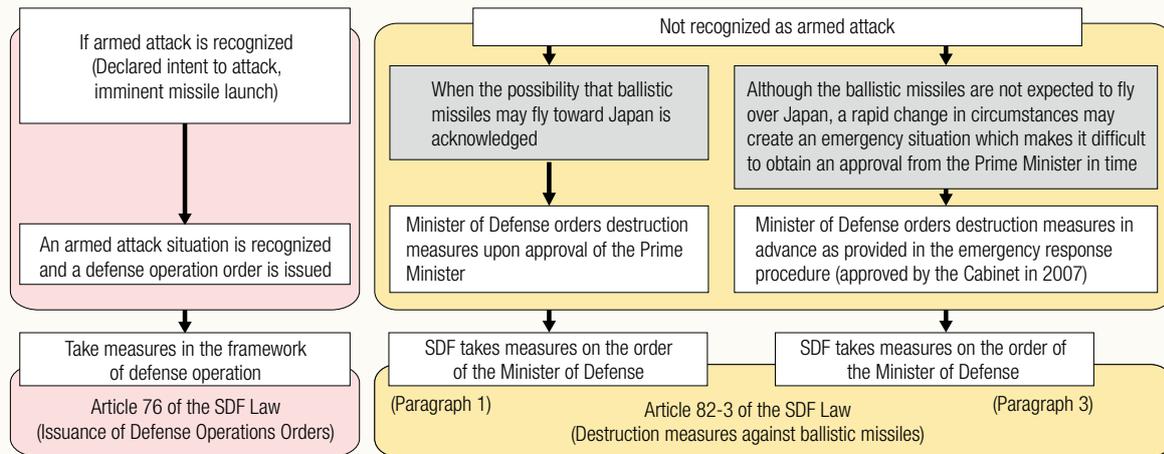
See Part III, Chapter 3, Section 2-2 (Counter-Piracy Operations)

4 Destruction Measures against Ballistic Missiles or Other Objects

In cases where ballistic missiles or other objects are flying to Japan as an armed attack or flying to Japan in a Survival-Threatening Situation, and where the “Three Conditions” are met, the SDF can respond with the defense operation. In cases where ballistic missiles or other objects are flying to Japan but which are not found as an armed attack, the Minister of Defense can take the following measures:

- (1) If the Minister of Defense judges that ballistic missiles or other objects are likely to fly to Japan and that it is necessary to prevent damage to human lives and property due to its fall in the territory of Japan, the Minister, upon the approval of the Prime Minister, can order the SDF units to take measures to destroy the ballistic missiles or other objects actually flying to the country in the airspace over the territory of Japan or the high seas.
- (2) In addition to the cases of (1) above, there may be cases where the situation suddenly changes with little information available on the launch, for example, and the Minister of Defense cannot have time to obtain approval from the Prime Minister. In preparation for such cases, the Minister of Defense may create an emergency response manual beforehand and obtain approval from the Prime Minister. Following the emergency response manual, the Minister of Defense can order, for a specified period of time, the SDF units to take measures to destroy ballistic missiles or other objects in the airspace over the territory of Japan or the high seas when such objects are actually flying to the country.

See Fig. II-5-1-3 (Flow of Response to Ballistic Missiles or Other Objects)
Part III, Chapter 1, Section 2-2 (Response to Missile Attacks)



Concept of ensuring civilian control of the military

- Response against ballistic missiles requires the government to assess the possibility of missiles flying toward Japan by comprehensively analyzing and evaluating the specific situation and international circumstances. In addition to the SDF destroying the missile, interagency actions are required, for example, measures for civil protection such as alert and evacuation, diplomatic activities, information gathering by related agencies, and enhancement of readiness for emergencies.
- In view of the importance of the matter and the necessity of action by the Japanese government as a whole, the Cabinet and Minister of Defense can sufficiently fulfill their responsibilities upon the Prime Minister's approval (Cabinet decision) and orders by the Minister of Defense. Furthermore, the supervision of the Diet is also defined with a provision in the law stipulating reporting to the Diet.

5 Measures against Intrusion of Territorial Airspace

The Minister of Defense may order SDF units to take necessary measures to make intruding aircraft land or withdraw from the territorial airspace of Japan (guiding intruders away, issuing radio transmission warnings, use of weapons, etc.) when a foreign aircraft intrudes Japan's territorial airspace in violation of international law, the provisions of the Aviation Law or other relevant laws and regulations.

See Part III, Chapter 1, Section 1-3-1 (Warnings and Scrambles in Preparation against Intrusion of Territorial Airspace)

6 Rescue and Transportation of Japanese Nationals Overseas

If the Minister of Defense receives a request from the Minister for Foreign Affairs upon an emergency situation overseas, the Minister of Defense can order the SDF to transport Japanese nationals and others who need protection of lives or bodies to a safe place. In addition, based on experiences such as the transport of Japanese nationals from Afghanistan in August 2021, the law was amended in 2022 (formulated and entered into force in

April 2022) to remove the limitation that, in principle, the means of transportation must be a government aircraft, and to review the safety requirements for the implementation of the law. In addition, among foreign nationals, (1) spouses and children of Japanese nationals, (2) honorary consuls-general, honorary consuls, and local personnel of overseas diplomatic missions, and (3) so-called local personnel of independent administrative institutions have become main subjects for transport like Japanese nationals, and the main eligible people have been thus expanded.

In addition, when their lives or bodies can be harmed, upon a request from the Minister for Foreign Affairs and after subsequent consultations between the Minister for Foreign Affairs and the Minister of Defense, as well as approval by the Prime Minister, the Minister of Defense can order the SDF to conduct "rescue measures" that include guarding and rescue of Japanese nationals, etc. if all of the following requirements are satisfied.

- It needs to be confirmed that in the areas where the rescue measures are taken, the competent authorities of the country concerned are maintaining public safety and order, and no act of combat will be conducted;
- The host country¹⁰ consents to the SDF taking the

¹⁰ It includes an organization, if any, that administers the said country in accordance with a resolution of the General Assembly or the Security Council of the UN.

rescue measures (including the use of weapons); and

- c. It is expected that coordination and cooperation can be ensured between the units of the SDF and the competent authority of the host country in order to carry out the rescue measures as smoothly and safely as possible in response to anticipated dangers.

 See Part III, Chapter 1, Section 4-2 (Response to Rescue and Transport of Japanese Nationals Overseas, etc.)

7 Protection of Weapons and Other Equipment of the Units of the U.S. Forces and the Armed Forces of Other Foreign Countries

Based on Article 95-2 of the SDF Law, it has been established that the SDF personnel may protect weapons and other equipment of the units of the U.S. Forces and the armed forces of other foreign countries actually engaging in activities that contribute to the defense of Japan in cooperation with the SDF. The basic principles of the article, the Cabinet's involvement in its operation, etc. are provided by "The Implementation Guidelines for Article 95-2 of the Self-Defense Forces Law"¹¹ decided by the National Security Council. An outline of the guidelines is as follows:

(1) Purpose of Article 95-2

Protection under this Article applies to weapons, etc. of the units of the United States Forces, armed forces of other foreign countries and other similar organizations that are, in cooperation with the SDF, actually engaged in activities that contribute to the defense of Japan (including bilateral/multilateral exercises but excluding activities in the scene where the combat activities are actually being conducted). This Article is to enable SDF personnel to carry out very passive and limited use of weapons to the minimum extent necessary to protect important material means which constitute the defense capability of Japan from infringements which do not amount to an armed attack.

(2) Activities that Contribute to the Defense of Japan

"Activities that contribute to the defense of Japan" include mainly the following ones, while the Government of Japan is to examine each activity on a case-by-case basis: (1) intelligence, surveillance, and reconnaissance (ISR) activities including ballistic missile alert; (2) transportation and replenishment activities in situations that will have an important influence on Japan's peace and security; and (3) bilateral/multilateral exercises to enhance capabilities required for defending Japan.

(3) Judgment on Whether or Not to Conduct Protection

When the Minister of Defense receives a request from the U.S. Forces, etc., the Minister subjectively should judge whether the relevant activities are "activities that contribute to the defense of Japan" and whether protection is necessary, by considering the objective and content of the activities, capability of the unit, and surrounding circumstances as well as the impacts on performance of the SDF's regular operations.

(4) Involvement of the Cabinet

Requests from the U.S. Forces, etc. should be deliberated in the NSC before the Minister of Defense judges on conducting protection if the Minister receives requests in the following cases. However, in urgent cases, the Minister should promptly report to the NSC.

- (1) The U.S. Forces, etc. makes a request for the first time.
- (2) The request is made for protection in the territory of a third country.
- (3) The request is recognized as particularly important, although not falling under the above two categories.

In addition, in case protection under the situations that will have an important influence is requested, the Prime Minister should clearly state it in the Basic Plan and should ask for a Cabinet decision on it after deliberations in the NSC.

 See Part III, Chapter 1, Section 5-2 (Track Record of Protection of Weapons and Other Equipment of the Units of the U.S. Forces and the Armed Forces of Other Countries (SDF Law Article 95-2))

¹¹ For "The Implementation Guidelines for Article 95-2 of the Self-Defense Forces Law," see the website of the Prime Minister's Office (https://www.mod.go.jp/j/approach/defense/pdf/20170518_01.pdf)

4 Disaster Relief Dispatches and Others

1 Disaster Relief Dispatches

In principle, Disaster Relief Dispatch is conducted as follows: prefectural governors or other officials ask the Minister of Defense, or an officer designated by the Minister, to dispatch the SDF units, etc. in the event of a natural disaster, and the Minister or the designated officer dispatches the units, etc. if it is deemed necessary for the SDF to respond to the disaster.¹² This procedure is based on the idea that prefectural governors and other officials should grasp the overall conditions of the disaster and their own disaster relief capabilities first, and then decide whether to make a request for the SDF disaster relief dispatch.

2 Earthquake Disaster Prevention Dispatch and Nuclear Disaster Relief Dispatch

When a warning declaration is issued based on the Act on Special Measures Concerning Countermeasures for Large-Scale Earthquakes¹³ or a declaration of a nuclear emergency situation is issued based on the Act on Special Measures Concerning Nuclear Emergency Preparedness, the Minister of Defense is authorized to order dispatching units upon a request of the Director of the Seismic Disaster Warning Headquarters or the Director of the Nuclear Disaster Countermeasures Headquarters (the Prime Minister).

 See Part III, Chapter 1, Section 4 (Response to Large-Scale Disasters, etc. (Including response to COVID-19))

5 Framework for Contributing to the Peace and Stability of the International Community

1 Response to Situations Threatening the International Peace and Security that the International Community Is Collectively Addressing

Under the International Peace Support Act,¹⁴ in order to ensure peace and security of the international community, the SDF is allowed to conduct cooperation and support operations for the armed forces of foreign countries engaged in operations for international peace and security in Situations Threatening the International Peace and Security that the International Community is Collectively Addressing.¹⁵ From the perspective of enabling seamless responses to any situation, the International Peace Support Law, enacted as a general law, enables the SDF to conduct operations more expeditiously and effectively, making it possible that

Japan proactively contributes to international peace and security on Japan's own initiative.

(1) Requirements

The requirement for the Government to offer cooperation and support to the operations of foreign armed forces is the issuance of one of the following UN resolutions (by the General Assembly or the Security Council).

- a. **Resolutions that decide, call upon, recommend or authorize the country, which is subject to Japan's support operations to respond to situations that threaten the peace and security of the international community**
- b. **Other than (a), resolutions that regard the situations as a threat to peace or a breach of peace and call on United Nations (UN) member states to respond to the situations concerned**

¹² The Commandant of the Japan Coast Guard, the Director General of the Regional Coast Guard Headquarters, and the Director of the Airport Administrative Office may request a disaster relief dispatch. With regard to disaster relief dispatch, earthquake disaster prevention dispatch, and nuclear disaster relief dispatch, (1) SDF personnel ordered for the dispatch may take measures such as evacuation (Article 4 of the Police Duties Execution Law) based on Article 94 of the SDF Law (Authority in Disaster Relief Dispatch, etc.); (2) SDF Reserve Personnel and SDF Ready Reserve Personnel may be called up for service in the event of disaster relief dispatch, and SDF Ready Personnel in the event of earthquake disaster prevention dispatch or nuclear disaster relief dispatch; and (3) special units may be temporarily formed as necessary.

¹³ The Prime Minister issues an earthquake alert with the endorsement of the Cabinet in the event that an earthquake prediction was reported by the Director-General of the Japan Meteorological Agency (JMA) and when it is deemed necessary to urgently implement emergency earthquake disaster prevention measures.

¹⁴ Official title: Law Concerning Cooperation and Support Activities to Armed Forces of Foreign Countries, etc. in Situations where the International Community is Collectively Addressing for Peace and Security

¹⁵ These refer to situations that threaten the peace and security of the international community, that international community is collectively addressing in accordance with the objectives of the UN Charter to remove the threat, and that Japan, as a member of the international community, needs to independently and proactively contribute to those international activities.

(2) Response Measures

The following response measures can be implemented in situations threatening the international peace and security that the international community is collectively addressing.

a. Cooperation and Support Activities

Supplies and services to armed forces of foreign countries (supply, transportation, repair and maintenance, medical services, communications, airport and seaport services, base services, lodging, storage, use of facilities, training services and construction) are to be provided.

While the provision of weapons is not included, as in the Law Concerning Measures to Ensure the Peace and Security of Japan in Situations that Will Have an Important Influence on Japan's Peace and Security, the "provision of ammunition" and "refueling and maintenance of aircraft ready to take off for combat operations" are allowed.

b. Search and Rescue Activities

c. Ship Inspection Operations¹⁶ (Those Set Forth in the Ship Inspection Operations Law)

(3) Measures to Avoid Integration with the Use of Force

The following measures are set forth in order to avoid integration with the use of force by a foreign country and also to ensure the safety of SDF personnel:

- The SDF units do not implement support activities in the scene where a combat is actually taking place. However, when the people stranded have already been found and rescue operations have commenced, the SDF units are allowed to continue search and rescue activities concerning them as long as the safety of these units is ensured.
- The commanding officers of the SDF units, etc., order a temporary suspension of support activities if combat operations occur or are expected to occur at the site of their activities or in the vicinity.

- The Minister of Defense designates the area for implementing activities, and if it is deemed difficult to implement operations smoothly and safely in the whole or part of that area, the Minister must promptly change the designation of the area or order the cessation of the activities being implemented there.

2 International Peace Cooperation Assignments

The International Peace Cooperation Act¹⁷ is aimed at enabling active contribution by Japan to international peace efforts centering upon the United Nations. It is to set forth a framework for the Implementation of International Peace Cooperation Assignments, with a view to extending appropriate and prompt cooperation for efforts such as United Nations Peacekeeping Operations¹⁸ and Internationally Coordinated Operations for Peace and Security,¹⁹ and to take measures to extend contributions in kind for those operations.

(1) Requirements for Participation

a. UN PKO

The so-called Five Principles for Participation in UN PKO²⁰ constitute Japan's basic policy for participation in UN PKOs. On that basis, the International Peace Cooperation Act stipulates that the consent for acceptance of countries to which the areas where these operations are conducted belong needs to be recognized as being stably maintained throughout the period of the operations if the SDF conducts so-called safety-ensuring operations or so-called kaketsuke-keigo operations.

b. Internationally Coordinated Operations for Peace and Security

Japan is able to participate in Internationally Coordinated Operations for Peace and Security whose nature or details are similar to those of UN PKO, when any of

¹⁶ Official title: Law Concerning Ship Inspection Operations in Situations that Will Have an Important Influence on Japan's Peace and Security and Other Situations

¹⁷ Official title: Act on Cooperation with United Nations Peacekeeping Operations and Other Operations

¹⁸ "United Nations Peacekeeping Operations" means the operations, etc. that are conducted under the control of the United Nations to respond to conflicts and maintain international peace and security, and that are implemented by the United Nations and two or more participating countries at the request of the Secretary-General of the United Nations, and with the consent of the Parties to Armed Conflict, etc.

¹⁹ "Internationally Coordinated Operations for Peace and Security means the operations, etc. other than those implemented as United Nations Peacekeeping Operations to respond to conflicts and maintain international peace and security, provided that such operations are implemented under the coordination of two or more participating countries, and with the consent of the Parties to Armed Conflict, etc."

²⁰ (1) Agreements on a ceasefire shall have been reached among the Parties to Armed Conflict; (2) Consent for the conduct of UN PKO as well as Japan's participation in such operations shall have been obtained from the countries to which the areas where those operations are to be conducted belong as well as from the Parties to Armed Conflict; (3) The operations shall strictly maintain impartiality, and not favor any of the parties to the armed conflict; (4) Should any of the requirements in the above-mentioned guideline cease to be satisfied, the International Peace Cooperation Corps participating from Japan may terminate the International Peace Cooperation Assignments; and (5) The use of weapons shall be limited to the minimum necessity for the protection of the lives of personnel dispatched, in principle.

the following conditions is satisfied, in addition to the fulfillment of the Five Principles for Participation.

- (1) Based on resolutions of the General Assembly, the Security Council, or the Economic and Social Council of the UN
- (2) At the requests of any of the following international organizations:
 - The UN
 - Organs established by the UN General Assembly or Specialized Agencies, Funds and Programmes of the UN such as the Office of the UN High Commissioner for Refugees or otherwise specified by a Cabinet Order
 - Regional organizations, as prescribed in Article 52 of the UN Charter or organs established by multilateral treaties, acknowledged as having the actual achievements or expertise pertaining to the activities of Internationally Coordinated Operations for Peace and Security such as the European Union or otherwise specified by a Cabinet Order
- (3) At the requests of the countries to which the areas where those operations are to be conducted belong (limited to only those cases that are supported by any of the principal organs of the UN as prescribed in Article 7 (1) of the UN Charter).

(2) Description of Tasks

- Ceasefire monitoring and humanitarian relief operations for afflicted people
- Monitoring, stationing, patrol, inspections at checkpoints and security escort for the protection of safety of specified areas including prevention and suppression of injury or harm against lives, bodies and property of local population, afflicted people and other populations requiring protection (so-called “safety-ensuring operations”)
- Protection of lives and bodies of individuals engaging in international peace cooperation operations or providing support for those operations, in response to urgent requests when unexpected dangers to lives or bodies of such individuals related to operations occur or are imminent (so-called “kaketsuke-keigo” operations)
- Tasks such as provision of advice or guidance related

to works for the purpose of assisting in establishing or reestablishing organizations of the Government relating to national defense or other organizations

- Tasks conducted at organizations for supervision and coordination of tasks to include planning, drafting, coordination or collection and updating of information in Headquarters Office or coordination offices conducting UN PKO and Internationally Coordinated Operations for Peace and Security, for the implementation of tasks (of mission headquarters’ operations)

(3) Others

- Dispatch of uniformed SDF personnel to the UN (Dispatch of Force Commanders of UN PKO)

It is possible, at the request of the UN, to dispatch uniformed SDF personnel and have them engage in the overall management of tasks of the UN implemented by units, etc. of the SDF or units of armed forces of foreign states participating in UN PKO, with the consent of the Prime Minister.²¹

- Provision of supplies and services to the U.S. Forces, etc., for their operations to cope with large-scale disaster

It is possible for the SDF to provide the U.S. Forces, the Australian Defence Force, or the Armed Forces of the U.K., Canada, France or India with supplies or services when they request their provision and are located in an area together with the units, etc. of the SDF, and are undertaking operations to cope with large-scale disasters, so far as it does not hinder the performance of International Peace Cooperation Assignments, etc., of the SDF.

 Part III, Chapter 3, Section 5 (Efforts to Support International Peace Cooperation Activities)

3 International Disaster Relief Activities

The Japan Disaster Relief Team Law²² stipulates measures necessary for dispatching the Japan Disaster Relief Team to provide rescue activities and medical services in response to large-scale disasters overseas, especially in less-developed regions.

The Minister for Foreign Affairs may consult the

²¹ The dispatch of uniformed SDF personnel is limited to cases where the consent of the countries hosting the UN PKO for which the dispatched uniformed SDF personnel will conduct operations and of state parties to the conflict regarding the implementation of the UN PKO (when the state parties to the conflict are nonexistent, the consent of the countries where the UN PKO is to be conducted) is deemed to be stably maintained throughout the duration of the dispatch and where circumstances that lead to the suspension of the dispatch are deemed unlikely to occur.

²² Official title: Law Concerning the Dispatch of the Japan Disaster Relief Team

Minister of Defense with regard to operations of SDF units if there is a special need. The Minister of Defense can order units of the SDF to carry out rescue and medical activities as well as transportation of personnel

and supplies based on the consultation above.²³

See Part III, Chapter 3, Section 5-3 (International Disaster Relief Activities)

Column Duties of the Self Defense Forces

The Ministry of Defense (the MOD) and the Self Defense Forces (the SDF) are national administrative entities and obviously require a legal basis in carrying out their respective duties.

The Act for Establishment of the Ministry of Defense defines the administrative scope of the Ministry of Defense, and Article 5 of the Act states that the Self Defense Forces Law determines the duties, actions, and authority of the Self Defense Forces. The Self Defense Forces Law provides a list (similar to an index) of what the Self Defense Forces are allowed to do in accordance with specified procedures to address various situations.

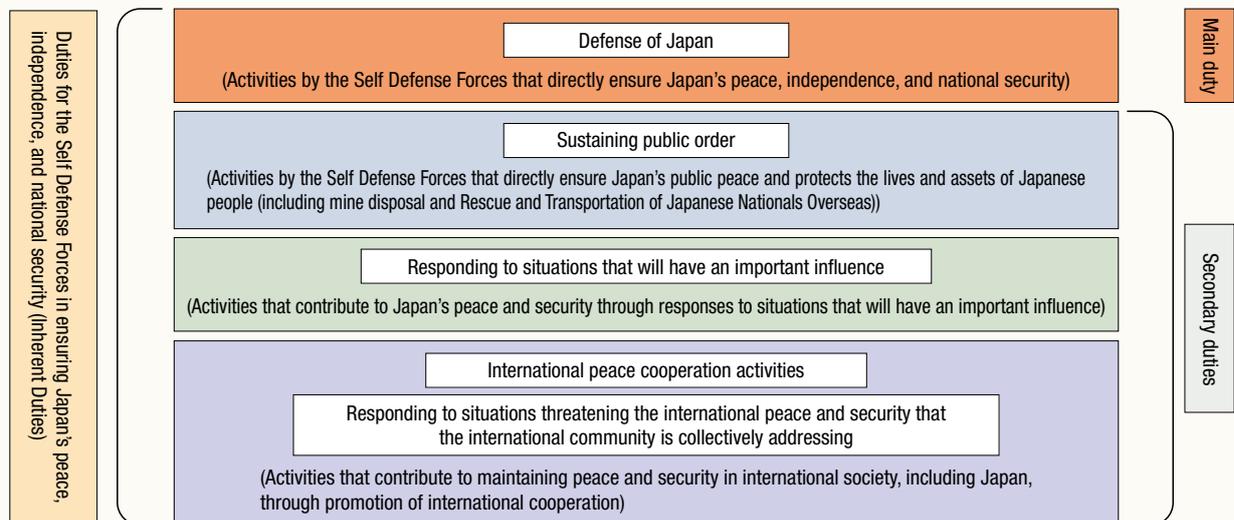
Article 3 in the Self Defense Forces Law divides the duties of the Self Defense Forces into main duties (item 1 of the same article) and secondary duties (items 1 and 2 of the same article). Defense actions to defend Japan correspond to main duties, and only the Self Defense Forces carry out these duties.

Secondary duties consist of “duties for maintaining public order as necessary” (secondary duties under item 1) and duties defined by other laws “to an extent that does not interfere with performance of the main duties” (secondary duties under item 2). The former includes public security operations that police entities cannot handle alone, maritime security operations, destruction

measures against ballistic missiles and other weapons, disaster relief dispatches, and measures against intrusion of territorial airspace. The latter covers responses to situations that will have an important influence (logistics support activities), international peace cooperation activities (international peace cooperation operations and international disaster relief operations), and activities related to Internationally Coordinated Operations for Peace and Security (Cooperation and Support Activities, etc.). These main and secondary duties are jointly known as “inherent duties.”

Activities handled by the Self Defense Forces (the SDF) on the basis that it is appropriate to utilize skills, experience, and organizational functions cultivated by the Self Defense Forces over many years are known as “additional duties” (separate from “inherent duties”). These include transportation for national guests who visit Japan to attend a Summit meeting, consignments of public park ground-leveling and road constructions as part of education and training, and cooperation with athletic events, such as Olympic Games, Paralympic Games, and National Athletic Meets.

Overview of the Self Defense Forces' duties



²³ The Japan Disaster Relief Team is not to be dispatched if the use of weapons is recognized to be necessary in order to protect the lives and bodies of people engaged in international disaster relief activities or transport, equipment necessary for such operations, etc. due to apparent danger in accordance with the level of security, etc. in the disaster-affected country. Therefore, members of the team will not carry weapons in the country concerned for the purpose of protecting the lives and bodies of people engaged in international disaster relief operations and equipment necessary for such operations.

Part

III

Three Pillars of Japan's Defense (Means to Achieve the Objectives of Defense)

Chapter 1

Japan's Own Architecture for National Defense

Chapter 2

Japan-US Alliance

Chapter 3

Security Cooperation

1 Significance of Defense Capability

Defense capability is the ultimate guarantor of Japan's national security. Defense capability represents Japan's will and ability to: deter threat from reaching Japan; and should threat reach Japan, eliminate the threat and, as a sovereign nation, by exerting efforts on its own accord and initiative, defend to the end Japanese nationals' life, person and property as well as territorial land, waters and airspace. In this sense, defense capability is not something that can be replaced by any other means.

At the same time, defense capability is essential for Japan to play on its initiative its roles in the Japan-U.S. Alliance at all phases from peacetime to armed contingencies. Strengthening Japan's defense capability to provide for national security is none other than strengthening the Japan-U.S. Alliance. Defense capability is essential also for advancing Japan's efforts in security cooperation with other countries.

Defense capability is the most important strength for Japan in retaining self-sustained existence as a

sovereign nation amid security environment it has never faced before. Japan must strengthen this capability on its own accord and initiative.

The NDPG states that, in order to create a security environment desirable for Japan and to deter and counter threats, Japan's defense capability must be able to serve the following six roles in a seamless and combined manner: (1) response from peacetime to "gray-zone" situations; (2) countering attacks against Japan, including its remote islands; (3) response in space, cyber and electromagnetic spectrum domains at all phases; (4) response to large-scale disasters, etc.; (5) cooperation with the United States based on the Japan-U.S. Alliance; and (6) promotion of security cooperation. In particular, in view of protecting the lives and peaceful livelihoods of Japanese nationals, the NDPG clearly states that it is all the more important for Japan's defense capability to fulfill diverse roles on a steady-state basis.

In order to fulfill these roles, the Ground Self-Defense Force (GSDF), Maritime Self-Defense Force (MSDF), and Air Self-Defense Force (ASDF) exist as defense

Fig. III-1-1

The Three Pillars of Japan's Defense [Image]



capabilities essential to Japan.

 See Fig. III-1-1 (The Three Pillars of Japan's Defense [Image])

2 Future Defense Capabilities

As the security environment surrounding Japan is becoming more severe and uncertain at a remarkably fast rate, in the NDPG, while qualitatively and quantitatively enhancing capabilities in individual domains, it is necessary to develop a defense capability that can execute cross-domain operations, which organically fuse capabilities in all domains to generate synergy and amplify the overall strength, so that even when inferiority exists in individual domains, such inferiority will be overcome and national defense will be accomplished.

For this reason, with regards to strengthening Japan's own defense posture, Japan will henceforth build a truly effective defense capability, "Multi-Domain Defense Force," which: organically fuses capabilities

in all domains including space, cyberspace and electromagnetic spectrum; and is capable of sustained conduct of flexible and strategic activities during all phases from peacetime to armed contingencies.

Additionally, in order for Japan's defense capability to completely fulfill its role, integrated operations, in which the SDF organically cooperates and quickly and efficiently carries out its duties, will be extremely important.

Therefore, since March 2006, the functions of the integrated operations system have been strengthened by transferring operational functions to the Joint Staff, transitioned from a posture based on operation of each SDF service. In today's security environment, it is becoming more important than ever to know how to organically integrate and operate the GSDF, MSDF, and ASDF defense capabilities so as to enable effective implementation of cross-domain operations including space, cyber, and electromagnetic spectrum; thus, the Joint Staff conducts integrated operations of the SDF.

Section 1 Response from Peacetime to Gray Zone Situations

Among the roles that must be served by Japan's defense capability as set forth in the NDPG, the idea of "(1) response from peacetime to 'gray-zone' situations" is as follows.

The Self-Defense Forces (SDF) will enhance its presence on a steady-state basis by actively engaging in, among others, bilateral/multilateral training and exercises and overseas port visits, thereby demonstrating Japan's will and capability. In view of the increasingly severe security environment surrounding Japan in recent years, such activities by SDF units will be positioned

as part of strategic communications and promoted in tandem with defense exchanges and diplomacy.

The SDF will leverage its capabilities in all domains to conduct wide-area, persistent intelligence, surveillance and reconnaissance (hereinafter referred to as "persistent ISR") activities around Japan, as well as prevent the occurrence or escalation of emergencies by employing flexible deterrent options and other measures. Leveraging posture in place for these activities, the SDF will, in coordination with the police and other agencies, immediately take appropriate measures in response

Column

The promotion of measures for strategic communication

To deal with security issues, it is necessary to create a security environment desirable to Japan through various activities, such as usual joint training and exercises, defense cooperation and exchanges, defense equipment and technological cooperation, and capability buildup support, as well as diplomatic efforts. It is also necessary to implement flexible deterrent measures according to changes in the situation and to prevent the situation from going in a more serious direction.

To this end, it is necessary to choose media and messages that make it possible to send effective information about various activities carried out by the Ministry of Defense (the MOD) and the Self-Defense Forces (the SDF) and their purposes and to send out information to the international community in coordination with allies and partner nations. We will actively promote measures for such strategic communication.

to actions that violate Japan's sovereignty, including incursions into its territorial airspace and waters.

The SDF will provide persistent protection against

incoming ballistic missiles and other threats, and minimize damage should it occur.

1 Persistent ISR in the Area Surrounding Japan

1 Basic Concept

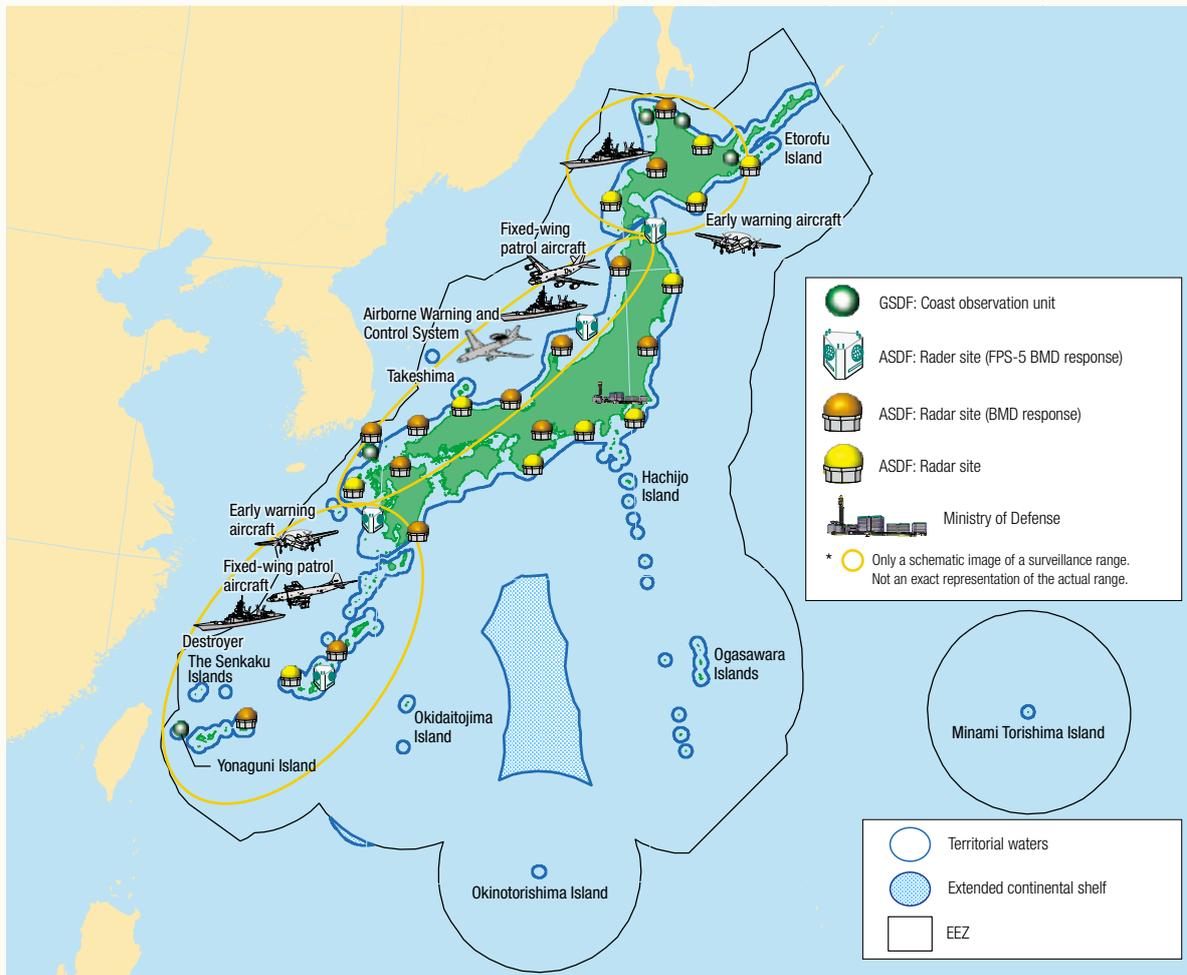
Japan is comprised of a little over 6,800 islands and is surrounded by wide sea space, which includes the sixth largest¹ territorial waters (including inland waters) and Exclusive Economic Zone (EEZ) in the world. The SDF is engaged in persistent intelligence collection and monitoring and surveillance during peacetime over Japan's territorial waters and airspace, as well as the

surrounding sea and airspace so that it can respond to various contingencies immediately and seamlessly.

2 Response by the MOD/SDF

The Maritime Self-Defense Force (MSDF) monitors ships navigating in the waters surrounding Hokkaido, the Sea of Japan, and the East China Sea from peacetime, using patrol aircraft² and other aircraft. The Air Self-

Fig. III-1-1-1 Conceptual Image of Monitoring and Surveillance of the Waters and Airspace Surrounding Japan



1 Excluding overseas territories. The eighth largest in the world if overseas territories are included.

2 Aircraft for monitoring with the purpose of gathering information and prevent a surprise attack by an opposing force. The MSDF possesses P-3Cs and P-1s as fixed-wing patrol aircraft, and SH-60Js and SH-60Ks as patrol helicopters.

Column

Senkaku Islands, Inherent Part of the Territory of Japan

The Senkaku Islands (Ishigaki City, Okinawa Prefecture) are clearly an inherent part of the territory of Japan, both historically and under international law. Japan actually has effective control of the islands. Therefore, there is no territorial issue to be resolved in the first place.

After a careful examination that there are no signs of any other country's control in 1895, the Japanese government decided to put the Senkaku Islands under the jurisdiction of Okinawa Prefecture by legitimate means under international law at a Cabinet meeting and officially incorporated the islands into the territory of Japan. China began to make its own claims regarding the Senkaku Islands in the 1970s, after a UN agency pointed out possible oil reserves in the East China Sea in 1968. It had not raised any objections until this point.

However, since Chinese maritime patrol vessels intruded into Japanese territorial waters surrounding the Senkaku Islands for the first time in 2008, they have repeatedly intruded into our territorial waters despite our strong objections, which is utterly unacceptable. The activities of Chinese maritime patrol vessels,

which are asserting their own claims in our territorial waters around the Senkaku Islands, are a violation of international law in the first place.

Japan cannot make any concessions to such a unilateral attempt to change the status quo. The MOD and the SDF will continue to deal with this situation calmly and to resolutely protect the lives and property of the people and the territory, territorial waters, and airspace of Japan.



The Senkaku Islands, an inherent territory of Japan [Website of the Cabinet Secretariat]

Defense Force (ASDF) uses radar sites at each location nationwide, and early warning and control aircraft³ amongst others, to conduct monitoring and surveillance activities over Japan and its surrounding airspace. These activities of the MSDF and ASDF are conducted 24 hours a day. Monitoring and surveillance activities in major channels are also conducted 24 hours a day by MSDF guard posts, Ground Self-Defense Force (GSDF) coastal surveillance units, and other assets.⁴ Furthermore, in order to maintain a posture to swiftly respond to various situations, monitoring and surveillance activities are carried out with the flexible use of vessels, aircraft, and so on as required.

The information obtained through such monitoring

and surveillance activities is shared with the related ministries and agencies, including the Japan Coast Guard, in order to strengthen coordination.

Major events confirmed through monitoring and surveillance by the SDF during FY2021 include the activities in the East China Sea on April 3 of a group of six Chinese warships, including the Chinese Navy Kuznetsov-class aircraft carrier “Liaoning,” which subsequently traveled southward through the waters between the main island of Okinawa and Miyakojima Island and into the Pacific Ocean. On April 26, this group of warships again traveled northward through the same waters from the Pacific Ocean to the East China Sea. The following day, on April 27, a Z-18 airborne early



MOVIE: [Airborne Unit] This is the patrol aircraft P-1

URL: <https://youtu.be/F8Mq-cr-IEs>

³ Aircraft with warning control systems and radar capable of monitoring omnidirectionally. Being excellent in speed performance and boasting long cruising time, the aircraft is able to fly to distant areas to engage in warning for a long time. Moreover, as it is also able to engage in warning at high altitude, it has outstanding flight performance and the monitoring and surveillance capability, such as a long line-of-sight distance. The ASDF has been operating E-767 aircraft based on civil aircraft B-767.

⁴ Article 4(1)18 of the Act for Establishment of the MOD (Investigation and research required for the performance of duties within jurisdiction) provides the legal basis for early monitoring and surveillance activities by the SDF.

VOICE Voice of MSDF Patrol Aircraft Crew in Charge of Conducting Surveillance Operations

Flight Unit 11, Air Patrol Squadron 1 (Kanoya City, Kagoshima Prefecture)

Tactical Air Coordinator, Lieutenant Commander NOBUKUNI Kosuke

I have been serving as the commander of P-1 patrol aircraft with Air Patrol Squadron 1 since March 2020. My role involves carrying out daily flight missions for security surveillance and information gathering with about ten crew members, mainly over the East China Sea. Daily security surveillance and information gathering are important tasks that allow us to seamlessly deal with any unexpected incidents that occur around Japan. These tasks are carried out 365 days a year without a break. The information obtained through security surveillance and other duties is shared with other government organizations, such as the Japan Coast Guard and the Fisheries Agency, and the navies of related countries, including the U.S. Navy, as well as within the



The author during a flight mission

Self-Defense Forces (SDF). This is to maintain a stable security environment through close mutual coordination.

We sometimes use radio communications to check the activity of foreign warships and other suspicious vessels during our daily duties. On such occasions, we are keenly aware of how closely our actions are connected with maintaining a stable level of security around Japan. During a flight mission, I feel constant tension due to my sense of responsibility towards fulfilling my duties and ensuring the safety of the crew. However, once I complete my duties, safely return to the base, and land on the ground, the sense of accomplishment I feel is immense.

Although I am confronted with tough duties every day, I hope to contribute to the defense of Japan by working towards self improvement and completing my duties with a strict and resolute attitude.



P-1 patrol aircraft and Mount Kaimon

warning helicopter took off from the Kuznetsov-class aircraft carrier “Liaoning” and came as close as within 50 km northeast of Taisho Island’s territorial airspace. This aircraft carrier, along with several other warships, was active in the East China Sea and Pacific Ocean from December 15 to 25, including navigation in the waters between the main island of Okinawa and Miyakojima Island. During this time, it was also observed launching carrier-based fighters and shipboard helicopters.

In addition, from October 18 to 23, as many as 10 Chinese and Russian warships circled Japan, passing through the Tsugaru Strait, the waters around the Izu Islands, and the Osumi Strait, and headed toward the East China Sea. This is the first time that both China

and Russia have engaged in such large-scale and long-term activities in the vicinity of Japan, and it is possible that they conducted these activities as a show of force against Japan. Thus, the waters and airspace in which the Chinese military operates are expanding more and more. Even in the face of the Chinese military’s expanding sphere of activity, the MOD/SDF will continue to steadily execute monitoring and surveillance activities in order to resolutely protect Japan’s territory, territorial waters, and airspace.

 **See** Fig. III-1-1-1 (Conceptual Image of Monitoring and Surveillance of the Waters and Airspace Surrounding Japan), Reference 13 (Number of Days of Incursions into the Territorial Waters around the Senkaku Islands by Ships Belonging to the China Coast Guard Bureau, etc.)

2 Response to Illicit Ship-to-Ship Transfers

1 Basic Concept

It has been pointed out that North Korea is attempting to evade United Nations (UN) Security Council sanctions through smuggling. As part of its regular monitoring and surveillance activities, the SDF collects information on vessels suspected of violating the UN Security Council sanctions in sea areas surrounding Japan.

2 Response by the MOD/SDF

During the period from 2018 onward, the MSDF vessels and patrol aircraft have so far observed 24 cases of seaborne rendezvous between North Korean tankers and foreign-flagged tankers on the high seas of the East China Sea. The information was shared with relevant agencies and ministries each time.

In a comprehensive judgment across the government, the vessels concerned are strongly suspected of engaging

in ship-to-ship transfers with the North Korean vessels, which is prohibited by UN Security Council resolution. Japan reported this to the UN Security Council Sanctions Committee on North Korea and shared the information with relevant countries, and gave information to the relevant countries regarding the tankers concerned and made public announcements on the subject.

In recent years, there has been growing international concern about these illicit maritime activities, including ship-to-ship transfers with North Korean vessels. Since April 2018, not only the United States, but also Australia, Canada, the United Kingdom, New Zealand, France, and Germany have dispatched naval vessels and aircraft to the waters surrounding Japan, including the East China Sea, to conduct monitoring and surveillance activities. The MOD/SDF will continue their close cooperation with concerned countries to ensure compliance with the UN Security Council resolution.

3 Measures against Violation of Japan's Sovereignty

1 Warnings and Scrambles in Preparation against Intrusion of Territorial Airspace

(1) Basic Concept

Under international law, countries have complete and exclusive sovereignty over their territorial airspace. Scrambling against aircraft intruding into territorial airspace is conducted as an act to exercise the right of policing intended to maintain public order. Unlike measures taken on land or at sea, this measure can be taken only by the SDF. Therefore, the ASDF is primarily responsible for conducting the actions based on the provisions of Article 84 of the SDF Law.

(2) Response by the MOD/SDF

The ASDF detects and identifies aircraft flying in airspace surrounding Japan using warning and control

radars as well as early warning and control aircraft. If any suspicious aircraft heading to Japan's territorial airspace are detected, fighters and other aircraft scramble to approach them in order to confirm the situation and monitor the aircraft as necessary. Furthermore, in the event that this suspicious aircraft has actually intruded into territorial airspace, a warning to leave the airspace



ASDF fighters preparing to scramble



MOVIE: Scrambling against aircraft intruding into Japanese territorial airspace

URL: <https://www.youtube.com/watch?v=pq3GE0f38uE>

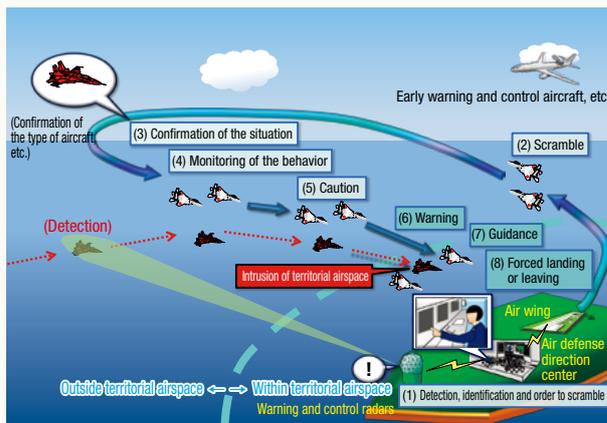
Column

Scrambling against Aircraft Intruding into Japanese Territorial Airspace

Scrambling against aircraft intruding into territorial airspace is a series of actions against aircraft that may violate Japanese airspace or foreign aircraft that have violated Japanese airspace by ordering aircraft scrambles to warn the violating aircraft to leave or land at the nearest airfield. In order to effectively implement measures against intrusion of territorial airspace, an Air Defense Identification Zone (ADIZ) has been established to identify aircraft flying around Japan.

Although the number of emergency launches has remained high in recent years, the MOD and the Self-Defense Forces will take all possible measures against airspace incursions in accordance with international law and the Self-Defense Forces Law, from the perspective of resolutely protecting Japan's

territorial land, waters, and airspace.



Procedures for scrambling against aircraft intruding into territorial airspace [image]

would be issued, among other responses.

In FY2021, ASDF aircraft scrambled 1,004 times (722 times in response to Chinese aircraft, 266 times in response to Russian aircraft, and 16 other times). This was the second highest number of scrambles since the measures against airspace incursions were started in 1958.

Flight patterns of Chinese military aircraft in recent years have changed, and now their range of activities are extending to not only the East China Sea, but also the Pacific Ocean and the Sea of Japan. As a distinctive example that occurred in FY2021, there was a situation on August 25 in which Chinese Y-9 intelligence-gathering aircraft, Y-9 patrol aircraft, and a BZK-005 unmanned aerial vehicle flew southward from the East China Sea to the Pacific Ocean through the airspace between the main island of Okinawa and Miyakojima Island, circled around in the Pacific Ocean, then reversed course and flew northward through this airspace to reach the East China Sea. This triggered the Japanese ASDF fighters to scramble in response. This was the first publicly announced transit between the main island of Okinawa and Miyakojima Island by an unmanned aerial vehicle. Many such transits through this airspace by Chinese military aircraft have been confirmed since the first instance was confirmed in July 2013. In addition, in November 2021, a long-range joint flight by Chinese and Russian bombers was confirmed in the vicinity of Japan for the third time, and was responded to by ASDF fighters. Such repeated military exercises

by strategic bombers of both countries in the vicinity of Japan signify an expansion and intensification of their activities in the vicinity of Japan, and are interpreted to be deliberate demonstrations of force against Japan. The MOD/SDF will take all possible measures against intrusions of Japan's territorial airspace while continuing to closely monitor the increasingly active movements of the Chinese military in the future.

In addition, incidents occurred on September 12, 2021, when Russian aircraft intruded in the airspace over the territorial waters of Japan at Cape Shiretoko, Hokkaido, and on March 2, 2022, when Russian aircraft intruded in the airspace over the territorial waters off the Nemuro Peninsula, Hokkaido, against which Japan lodged a protest with the Russian government through diplomatic channels. In December 2021, there was an instance in which Russian IL-20 intelligence-gathering aircraft flew over the Sea of Japan, the Sea of Okhotsk, and the Pacific Ocean, and eight presumed Russian aircraft flew a long distance over the Sea of Japan and elsewhere with chase aircraft, in response to which ASDF fighters were called to scramble as well. The MOD/SDF will continue to closely monitor such activities by Russian aircraft.

See Fig. III-1-1-2 (Number and Breakdown of Scrambles since the Cold War)

Fig. III-1-1-3 (Example Flight Patterns of Russian and Chinese Aircraft to Which Scrambles Responded (FY2021))

Fig. III-1-1-4 (Air Defense Identification Zone (ADIZ) of Japan and Those of Neighboring Countries/Regions [image])

Fig. III-1-1-2 Number and Breakdown of Scrambles since the Cold War

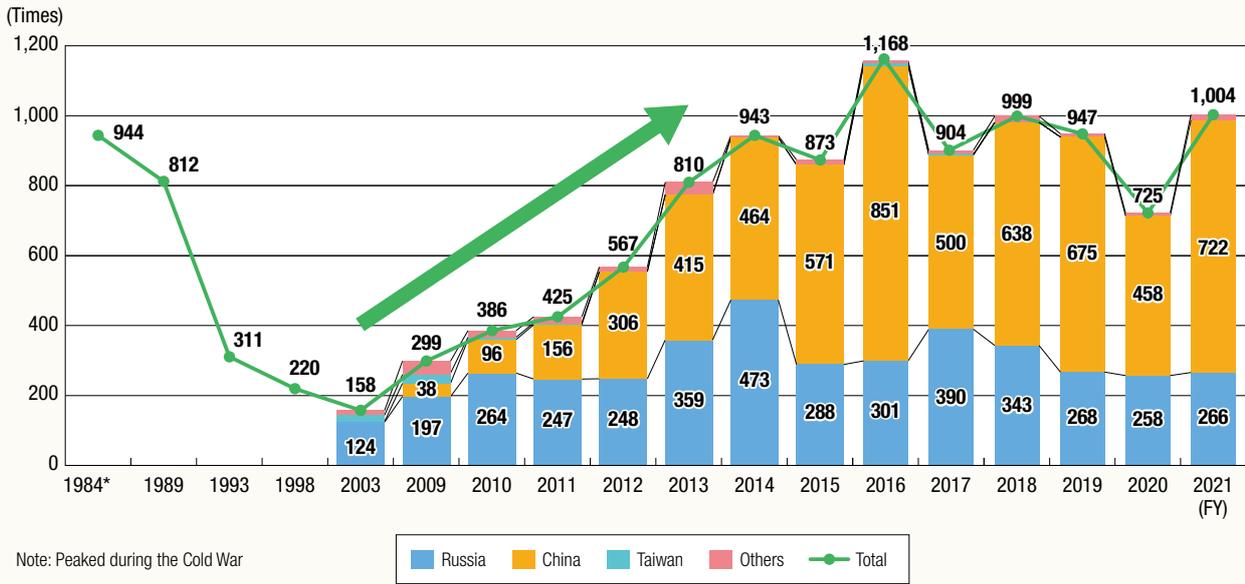


Fig. III-1-1-3 Example Flight Patterns of Russian and Chinese Aircraft to Which Scrambles Responded (FY2021)

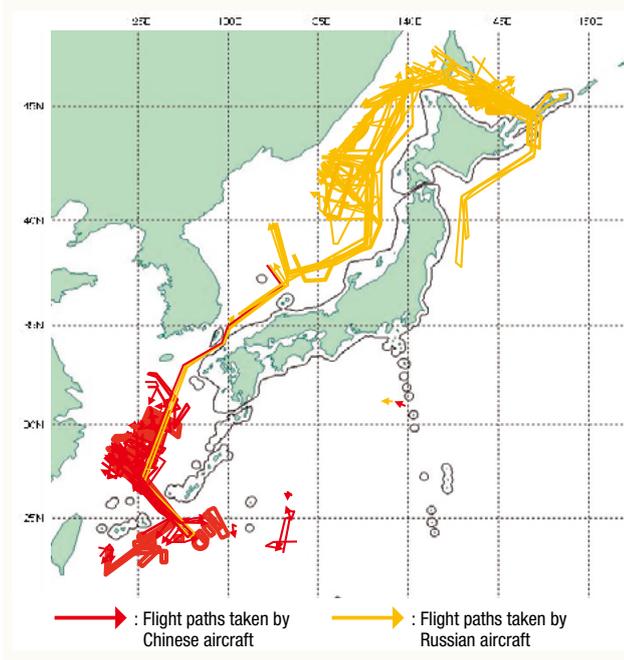
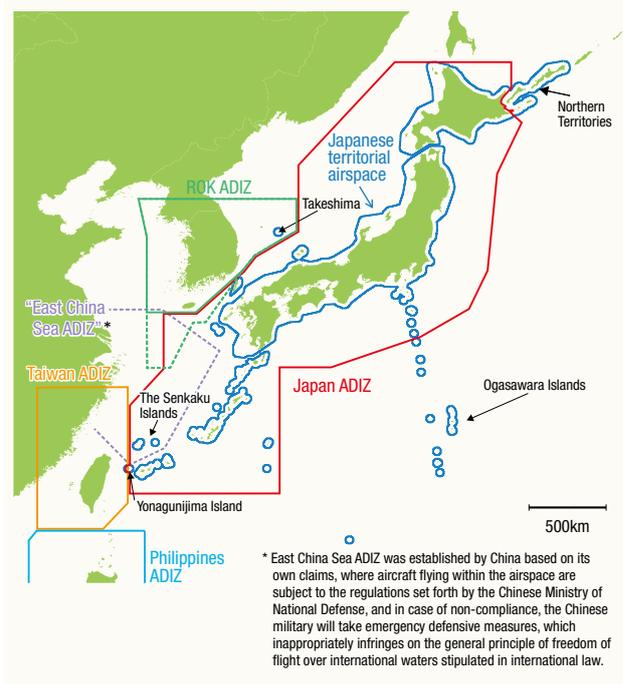


Fig. III-1-1-4 Air Defense Identification Zone (ADIZ) of Japan and Those of Neighboring Countries/Regions [image]



2 Response to Submarines Navigating Underwater in Japan's Territorial Waters

(1) Basic Concept

With respect to foreign submarines navigating underwater in Japan's territorial waters,⁵ an order

for maritime security operations will be issued. The submarine will be requested to navigate on the surface of the water and show its flag, in accordance with international law, and in the event that the submarine does not comply with the request, the SDF will request it to leave Japanese territorial waters.

⁵ The term "territorial waters" also includes inland waters.

(2) Response by the MOD/SDF

The MSDF is maintaining and enhancing capabilities for: expressing its intention not to permit any navigation that violates international law; and responding in shallow water areas by detecting, identifying, and tracking foreign submarines navigating under the territorial waters of Japan. In November 2004, the MSDF observed a submerged Chinese nuclear-powered submarine navigating under Japanese territorial waters around the Sakishima Islands. In response to this incident, the MSDF issued an order for maritime security operations, and continued to track the submarine with MSDF vessels until it entered the high seas.

In January 2018, a Chinese submarine was spotted by MSDF assets including a destroyer navigating underwater through Japan's contiguous zone in the vicinity of the Senkaku Islands. In the past, submarines navigating underwater through the Japanese contiguous zone were spotted in other sea areas; however, this was the first time that a Chinese naval submarine has been observed operating in Japan's contiguous zone in the vicinity of the Senkaku Islands.

Furthermore, on September 10, 2021, a submarine presumed to be Chinese was confirmed to be navigating underwater through the Japanese contiguous zone in the vicinity of Amami Oshima Island, and monitoring and surveillance operations were carried out by MSDF destroyers and patrol aircraft. Although this submarine did not intrude into territorial waters, such submarine activity should be closely monitored by Japan. Under international law, a foreign submarine must display its flag while navigating in the territorial waters of a coastal state. The SDF will maintain a vigilant monitoring and surveillance posture to ensure that activities in violation

of international law are not permitted.

3 Response to Armed Special Operations Vessels

(1) Basic Concept

The Japan Coast Guard, as a police organization, is primarily responsible for responding to suspicious armed special operations vessels (unidentified vessels). However, in the event that it is deemed extremely difficult or impossible for the Japan Coast Guard to respond to a situation, an order for maritime security operations will be issued and the situation will be handled by the SDF in cooperation with the Japan Coast Guard.

(2) Response by the MOD/SDF

In light of the lessons learned from the cases of an unidentified vessel off the Noto Peninsula in 1999, an unidentified vessel in the sea southwest of Kyushu in 2001, and other similar incidents, the MOD/SDF have been making various efforts.

In particular, the MSDF has been taking the following steps: (1) deployment of Patrol Guided Missile Boats; (2) establishment of the MSDF Special Boarding Unit;⁶ (3) equipment of destroyers with machine guns; (4) furnishing forcible maritime interdiction equipment (flat-nose shells);⁷ (5) improving the sufficiency ratio of military vessel personnel; and (6) enhancing equipment for the Vessel Boarding Inspection Team. In addition, based on "the manual for dealing with suspicious vessels" formulated jointly by the then Defense Agency and the Japan Coast Guard in 1999, they have regularly conducted the training in order to strengthen coordination.

4 Information Gathering Activities for Ensuring the Safety of Japan-related Vessels in the Middle East

1 Background of the Deployment of the SDF to the Middle East

Peace and stability in the Middle East are crucial to the peace and prosperity of the international community, including Japan. In addition, it is very important to ensure the safety of Japan-related vessels in the Middle

East, which is the world's major energy source and on which Japan depends for about 90% of its crude oil imports.

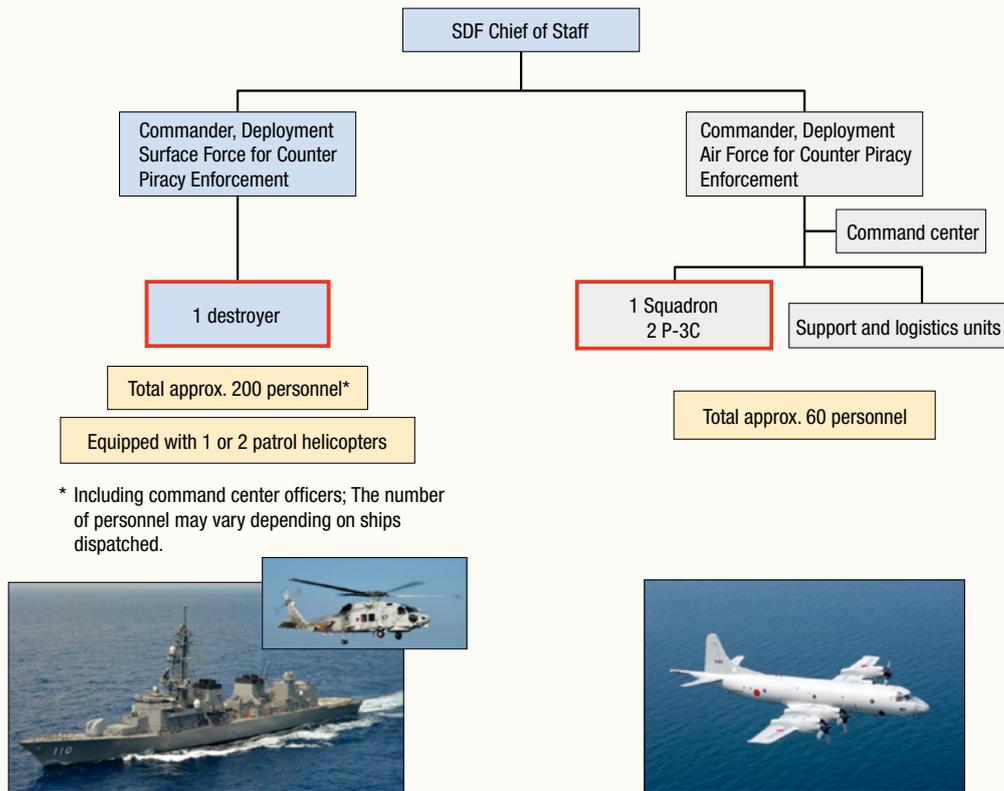
In the Middle East, amidst rising tensions, there were incidents of attacks on ships. In June 2019, Japan-related vessels suffered damage. Under these circumstances, the United States, European countries, and other countries

⁶ A special unit of the MSDF was newly established in March 2001 to deter expected resistance, and disarm suspicious vessels in the event of vessel boarding inspections under maritime security operations.

⁷ A non-bursting shell launched from the 76-mm gun equipped on a destroyer, the flat front nose of which keeps it from bouncing.

Fig. III-1-1-5

Units Engaged in Information Gathering Activities in the Middle East



are taking steps to ensure the safety of navigation in the region by utilizing ships and aircraft.

In order to ease tensions and stabilize the situation in the Middle East, the Japanese Government has actively promoted diplomatic initiatives, including then Prime Minister Abe's visit to Iran in the same month, and the Japan-U.S. summit meeting during the UN General Assembly and the Japan-Iran summit meeting in September.

In this context, as a result of discussions that took place between the Prime Minister and other relevant ministers at the National Security Council and other meetings, Japan's own initiative to ensure peace and stability in the Middle East and the safety of Japan-related vessels is as follows: (1) further diplomatic efforts to ease tensions in the Middle East and stabilize the situation; (2) thorough implementation of navigation safety measures, including close information sharing with relevant industries; and (3) conducting of information gathering activities via the use of SDF assets. In December, the Cabinet approved them as the government's policy for governmental efforts to ensure the safety of Japan-related vessels.

Since the Cabinet decision in December 2021, these

information gathering activities have been utilizing two P-3C patrol aircraft of the Deployment Air Force for Counter Piracy Enforcement (DAPE), as well as one destroyer of the Deployment Surface Force for Counter Piracy Enforcement (DSPE).

The area of operation includes three waters of high seas: the Gulf of Oman, the northern Arabian Sea and the Gulf of Aden to the east of the Bab el-Mandeb Strait (including the exclusive economic zones of the coastal states).

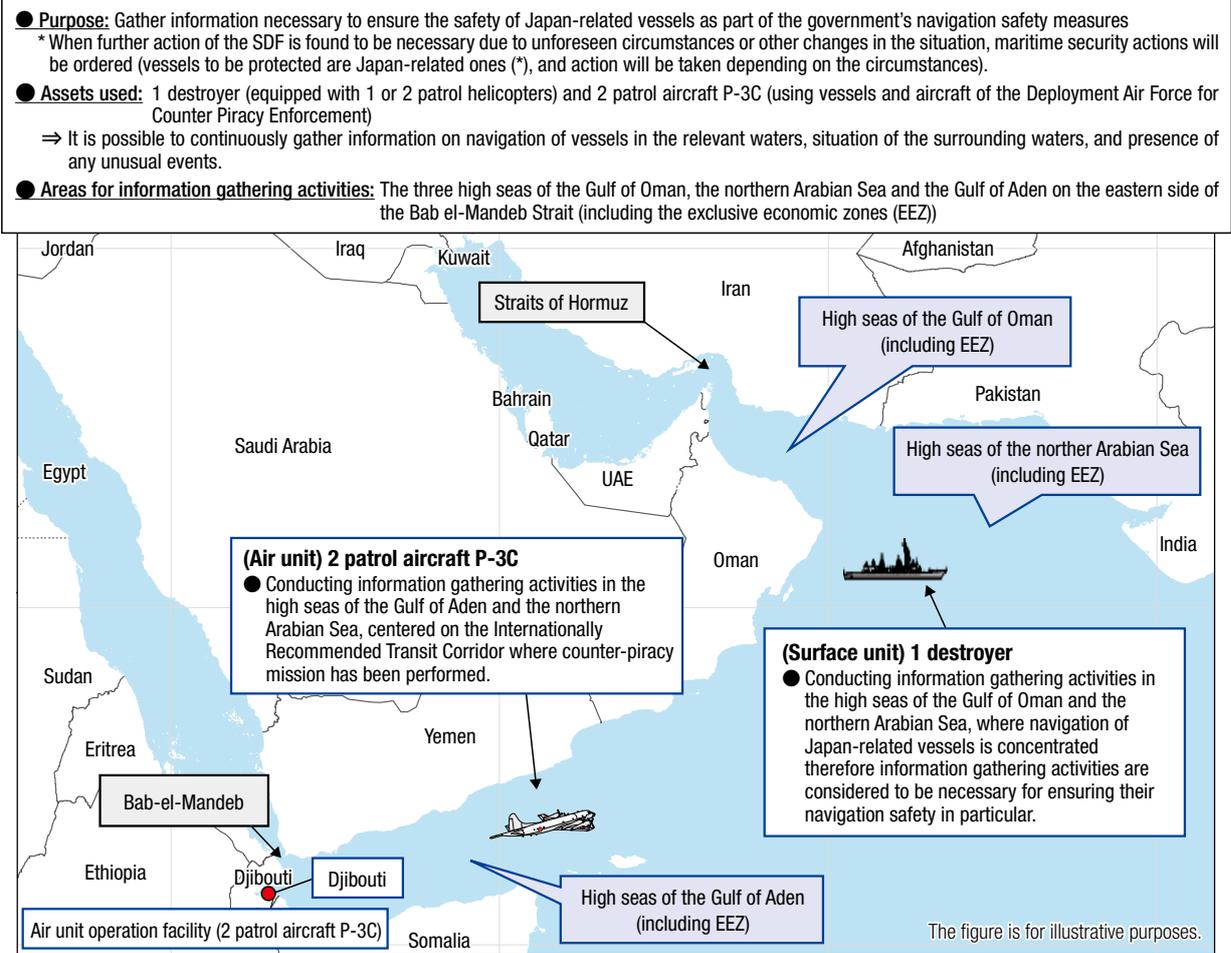
Information gathered by the SDF is shared with the Cabinet Secretariat, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), MOFA, and other relevant ministries and agencies, as well as with relevant industries through public-private liaison meetings, to be used for the government's navigation safety measures.

2 Activities by the SDF

(1) Information gathering activities by the SDF

The SDF's information gathering activities are aimed at collecting information necessary to ensure the safety of Japan-related vessels as a part of the government's navigation safety measures.

Fig. III-1-1-6 Information Gathering Activities by the SDF [image]



* In addition to Japanese vessels and foreign vessels with Japanese nationals onboard, it also refers to vessels that are important to the stable economic activities of Japanese citizens, including foreign vessels operated by a Japanese ship operator, and foreign vessels transporting Japanese cargo.

The activities are to be conducted in accordance with the provisions of Article 4, paragraph (1), item (xviii) of the Act for Establishment of the Ministry of Defense, as these activities are necessary in making decision to order Maritime Security Operations (provided in Article 82 of the Self-Defense Forces Law) and conducting the operation smoothly when ordered, as measures for unforeseen circumstances or other changes in the situation.

(2) Results of the SDF's Activities

In January 2020, two P-3C patrol aircraft of the counter-piracy unit began information gathering activities.

In addition, in February 2020, a destroyer of the Deployment Surface Force for Information Gathering Activities began information gathering activities.

Based on the December 2021 Cabinet decision, since February 2022, the Deployment Surface Force

for Counter Piracy Enforcement (DSPE) has been conducting both counter-piracy operations and information gathering activities.

To date, no information has been received that there were unusual events for Japan-related vessels in the sea areas where the surface units and aerial units are active.

a. Deployment Surface Force for Information Gathering Activities until February 2022, Deployment Surface Force for Counter Piracy Enforcement (DSPE) from February onward

Operates in the high seas of the Gulf of Oman and in the high seas of the northern Arabian Sea. The total number of confirmed vessels as of March 31, 2022, is 79,433.

b. Deployment Air Force for Counter Piracy Enforcement
 Operates in the high seas of the Gulf of Aden and in the high seas of the western side of the northern Arabian Sea. The total number of confirmed vessels as of March 31, 2022, is 45,426.

(3) Extension of the Activity Period

In the Middle East, although there is no immediate need to protect Japan-related vessels, high tensions persist, and, based on the fact that each country is continuing its own activities, including the “International Maritime Security Construct” by the United States and other countries, the Japanese Government has been extending the SDF’s activity period by about one year every year since 2020.

If it is deemed before the expiration of the period that activities by the SDF are no longer necessary in light of the need to ensure the safety of navigation for Japan-related vessels, the Government will conclude these activities at that point and without waiting for the end of the activity period. In addition, the National Security Council will consider how to respond if there is a significant change in the situation.

 See Fig. III-1-1-5 (Units Engaged in Information Gathering Activities in the Middle East), Fig. III-1-1-6 (Information Gathering Activities by the SDF [image]), Reference 20 (Government’s Efforts to Ensure the Safety of Japan-Related Vessels in the Middle East)

3 Communication and Cooperation with Relevant Countries

(1) United States

As a result of a comprehensive review of what measures Japan should take to ensure the safe navigation of

Japan-related vessels in the Middle East, Japan has started to implement efforts as Japan’s independent initiative without participating in the International Maritime Security Construct led by the United States, considering the need for ensuring a stable supply of crude oil, relations with the United States, and relations with Iran. At the same time, to ensure safe navigation in the Middle East, the SDF has been cooperating closely with the United States in various ways. In the information gathering activities as well, the SDF is to appropriately cooperate with the United States as an ally, while observing the government’s policy of conducting navigation safety measures independently from any other country’s initiatives. For this reason, an MSDF officer has been dispatched to the U.S. Central Naval Command in Bahrain as a liaison officer to share information with the U.S. Forces.

(2) Coastal States in the Middle East

It is important to gain understanding of the coastal states, including Iran, regarding the information gathering activities that Japan is undertaking as an independent initiative, and Japan has been explaining these activities to them with transparency. In addition, the coastal states play an important role in ensuring safe navigation in the Middle East. Japan has been reaching out to the coastal states to gain their understanding of Japan’s efforts.

Section 2 Defense of Japan including its Remote Islands

Among the roles that must be served by Japan's defense capability as set forth in the NDPG, the idea of "(2) countering attacks against Japan, including its remote islands" is as follows.

In response to attack on Japan including its remote islands, the SDF will quickly maneuver and deploy requisite units to block access and landing of invading forces while ensuring maritime¹ and air² superiority. Even when maintaining maritime and air superiority becomes untenable, the SDF will block invading forces' access and landing from outside their threat envelopes. Should any part of the territory be occupied, the SDF

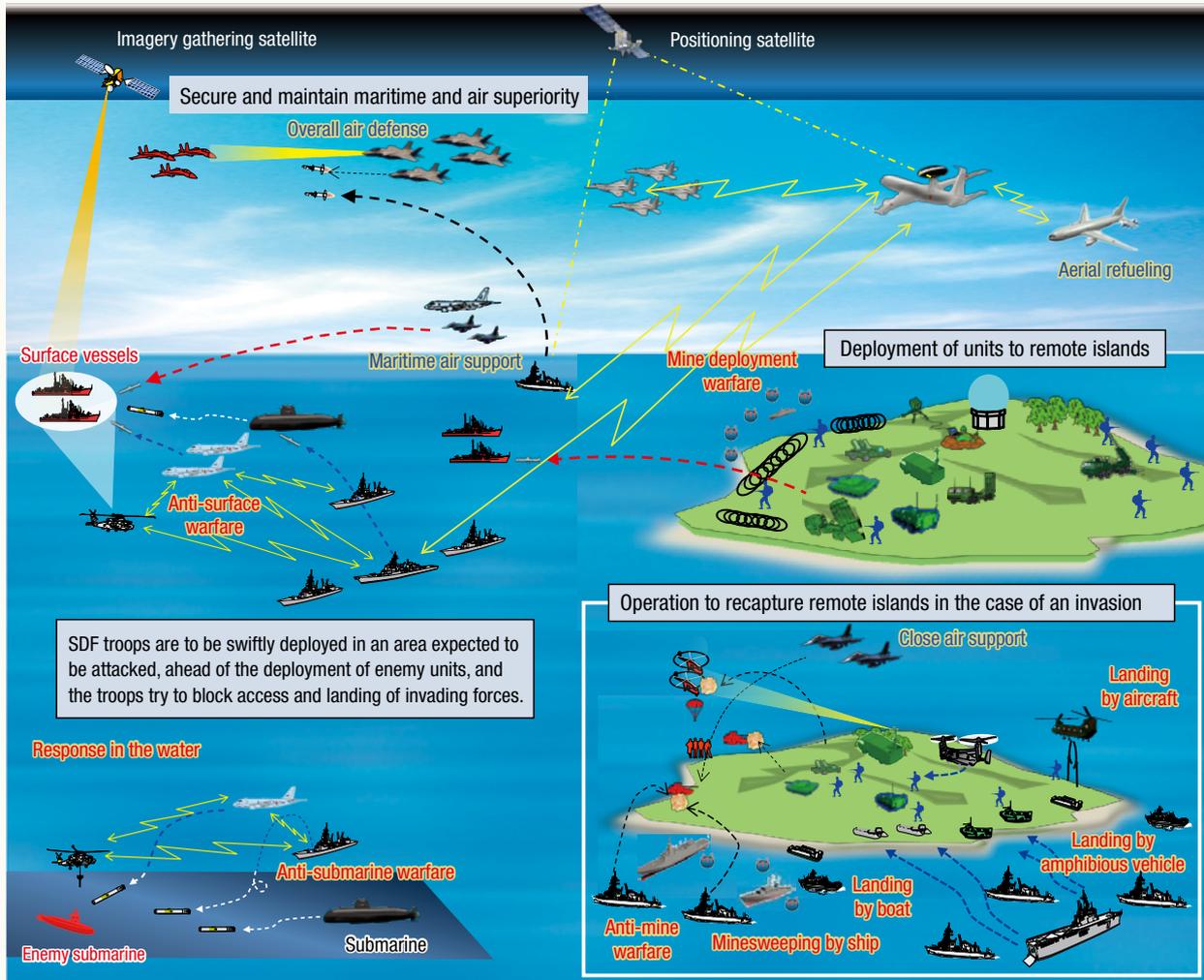
will retake it by employing all necessary measures.

Against airborne attack by missiles and aircraft, the SDF will respond in a swift and sustained manner by applying optimal means and minimize damage to maintain SDF's capabilities as well as the infrastructure upon which such capabilities are employed.

In response to attack by guerrillas or special operations forces, the SDF will protect critical facilities including nuclear power plants and search and destroy infiltrating forces.

In responding to such attacks, the SDF will implement cross-domain operations that organically

Fig. III-1-2-1 Conceptual Image of Defending Japan's Remote Islands (Example)



1 Maritime superiority refers to the condition in which one side has a tactical advantage over the opposing force at sea and can carry out maritime operations without suffering substantial damages by the opposing force.
 2 Air superiority refers to the condition in which one side can carry out airborne operations without suffering a significant level of obstruction by the opposing force.

fuse capabilities in space, cyber and electromagnetic spectrum domains to block and eliminate attacks.

In view of protecting the life, person and property of the nationals, the SDF will implement measures for

civil protection.

 Fig. III-1-2-1 (Conceptual Image of Defending Japan's Remote Islands) (Example)

1 Defense of Japan's Remote Islands

1 Basic Concept

One of the geographical characteristics of Japan is that it possesses numerous remote islands spanning a broad area, across which the lives, bodies, and property of its civilians, as well as its territory, territorial waters, airspace, and other various resources that must be protected are widely dispersed. In order to respond to attacks on these islands, it is important to station units and so forth in accordance with the security environment, and also to maneuver and deploy them according to situations on a steady-state basis. It is also important to ensure maritime and air superiority by detecting signs at an early stage through persistent ISR conducted by the SDF.

If signs of attack are detected in advance, units will be maneuvered and deployed in an area expected to be invaded ahead of the deployment of enemy units, and will block access and landing of invading forces. In addition, even when maintaining maritime and air superiority becomes untenable, the SDF will block invading forces' access and landing from outside their

threat envelopes.

Should any part of the territory be occupied, the SDF will retake it by employing all necessary measures such as bringing the enemy under control by ground fire from aircraft and vessels, and then regaining the territory by the landing of GSDF forces.

2 Initiatives of the MOD/SDF

In order to strengthen its defense architecture in the southwestern region, the ASDF established the 9th Air Wing in January 2016 and newly formed the Southwestern Air Defense Force in July 2017. In addition, in April 2022, the ASDF deployed Air Warning & Control Units to Yonagunijima Island. The GSDF, in addition to the Yonaguni coast observation unit formed in March 2016 and other newly-formed units, established the Amphibious Rapid Deployment Brigade with full-fledged amphibious operation capabilities in March 2018. Moreover, the GSDF deployed some units, including an area security unit in Amami Oshima Island, and an area security unit in Miyakojima Island, in March

Column Yonaguni and Taiwan

Camp Yonaguni is located at the westernmost point of Japan and is a crucial facility for the defense of southwestern regions. In addition, Yonagunijima Island is very close to Taiwan with a distance of approximately 100 kilometers and Taiwanese shores can be seen from the island when visibility is good. The waters between Yonagunijima Island and Taiwan are one of the routes that Chinese naval vessels pass through when they sail between the East China Sea and the Pacific. It was confirmed on May 1, 2021 that a Chinese Navy Jiangkai II-class frigate had sailed northward through these waters towards the East China Sea. The camp, located on the frontlines of borders, is home to the Ground Self-Defense Force Coast Observation Unit. The camp plays a vital role in the defense of Japan by monitoring naval

vessels sailing near the waters closest to our territorial waters and airspace from shores and detecting various signs early.



Defense Minister's instructions at Camp Yonaguni

Column Strengthening Stand-off Defense Capabilities

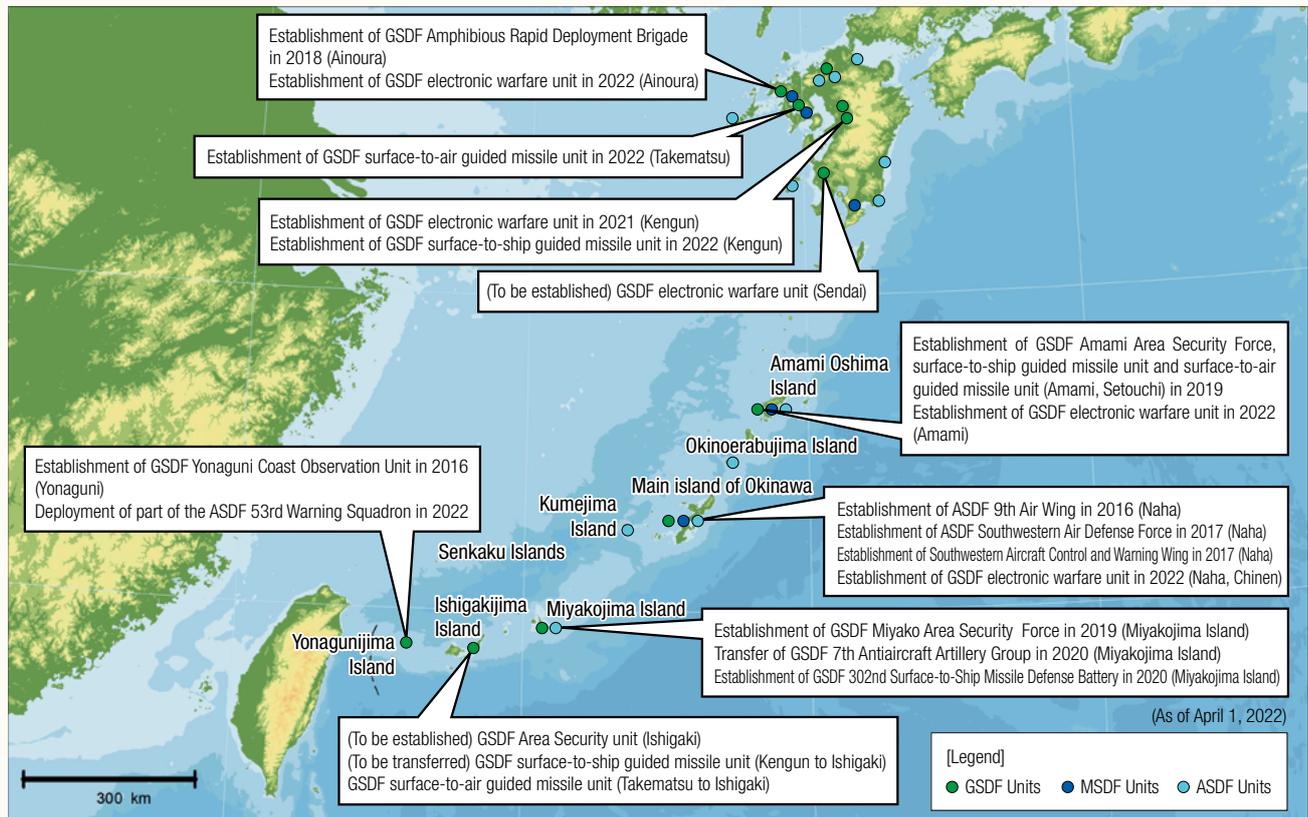
As the performance of radars and various types of missiles in countries around the world continue to improve, there is a need to ensure the safety of SDF personnel and effectively prevent attacks on our country. For this reason, the MOD is working to strengthen Japan's stand-off defense capabilities (see note) to act against invading naval vessels from remote locations outside of threat zones.

Specifically, it is working on the introduction of stand-off missiles such as the JSM for use on the F-35A fighter, and on research and development of high-speed gliding bombs for

island defense. In order to swiftly enhance Japanese stand-off defense capabilities, in December 2020 the cabinet approved the development of a Type 12 surface-to-ship guided missile with enhanced capabilities, which is designed to operate from a variety of platforms such as vehicles, naval vessels, and aircraft. It is believed that the ability to operate a variety of stand-off missiles in this way will make it more difficult for opposing forces to respond and will increase our deterrent capability against attacks on Japan.

Note: Stand-off generally means away from.

Fig. III-1-2-2 Establishment Status of Major Units in Kyushu/Southwestern Region (since 2016) [conceptual diagram]



2019. A surface-to-air missile unit and a surface-to-ship guided missile unit were deployed to Miyakojima Island in March 2020. In the future, a new camp will be established on Ishigakijima Island in FY2022, where an area security unit, surface-to-air guided missile unit, and surface-to-ship guided missile unit will be stationed, and the Amphibious Rapid Deployment Brigade's 3rd Amphibious Rapid Deployment Regiment will be newly formed at Camp Takematsu (Omura City, Nagasaki

Prefecture) in FY2023.

As part of measures to enhance the persistent ISR posture, etc., the SDF has acquired a new type of destroyer (FFM) and E-2D airborne early warning aircraft. The ASDF established the Airborne Warning and Control Wing by upgrading the Airborne Early Warning Group in March 2020, and will disband the Temporary Reconnaissance Group and form a new Reconnaissance Group (tentative name) within FY2022.

Additionally, the ASDF is building up its KC-46A aerial refueling and transport aircraft to enhance its aerial refueling and transport capabilities, and formed the new 405th Air Refueling Squadron in December 2020 as an aerial refueling and transport aircraft unit.

In order to deal with ships and landing forces attempting to invade Japan while ensuring the safety of SDF personnel, the SDF procured stand-off missiles which are capable of responding from the outside of their threat envelopes, and has started research and development (R&D) on technologies required for new anti-ship missiles and Hyper Velocity Gliding Projectiles (HVGP) intended for the defense of remote islands to take all initiatives necessary to defend the islands since 2018, and technologies required for hypersonic weapons since 2019.

In December 2020, in addition to the aforementioned R&D, the Cabinet approved the development of an improved version of the Type 12 Surface-to-Ship Guided Missiles designed for a variety of operation platforms. The FY2021 budget included funds for the development of ground-launched missiles, and this development began in July 2021. Furthermore, the FY2022 budget included funds for the development of ship-launched and air-launched missiles.

Also, in order to secure capabilities for swift and largescale transportation and deployment of units,

initiatives are underway to enhance maneuver and deployment capabilities through: the improvement of Osumi class LST (Landing Ship, Tank); V-22 Ospreys and C-2 transport aircraft; reorganization into mobile divisions and brigades; and the acquisition of transport ships, etc. In particular, regarding the operation of V-22 Ospreys, the MOD has determined that Saga Airport is the best airfield for deployment, and the governor of Saga Prefecture has expressed acceptance of this arrangement in August 2018. The MOD/SDF will continue to work to gain understanding on deployment at the airport from the relevant local authorities and others.³

On the other hand, the MOD/SDF created a airlift wing equipped with V-22 Osprey tilt-rotor aircraft at Camp Kisarazu in March 2020, considering the time needed to deploy the aircraft to Saga Airport. Additionally, in July 2020, provisional deployment began along with the transport of two V-22 Ospreys to Camp Kisarazu.

Apart from this, the SDF has conducted a number of training and exercises, including bilateral/multilateral training with the United States and other concerned nations, in order to improve its capability to defend Japan's remote islands.



Fig. III-1-2-2 (Establishment Status of Major Units in Kyushu/Southwestern Region (since 2016) [conceptual diagram])

2 Response to Missile Attacks

1 Japan's Comprehensive Air and Missile Defense Capability

(1) Basic Concept

Japan began developing the Ballistic Missile Defense (BMD) system in 2004 to be fully prepared for the response against ballistic missile attacks. Necessary amendments were subsequently made to the SDF Law in July 2005, and in December of the same year, the then Security Council and Cabinet decided to begin Japan-U.S. cooperative development of an advanced

ballistic missile interceptor. To date, Japan has steadily built up its own defense system against ballistic missile attacks, by such means as installing ballistic missile defense capability to the Aegis-equipped destroyers and deploying the Patriot Advanced Capability-3 (PAC-3).⁴

Currently, Japan's BMD is an effective multi-layered defense system with the upper tier interception by Aegis equipped destroyers and the lower tier by Patriot PAC-3, both interconnected and coordinated by the Japan Aerospace Defense Ground Environment (JADGE).⁵

Today airborne threats to Japan are increasingly

³ At the KYUSHU-SAGA International AIRPORT, the ramp, aircraft hangars, etc., are to be developed on the west side of the airport. Approximately 70 aircraft, consisting of 17 newly acquired V-22 Ospreys and approximately 50 helicopters transferred from GSDF Camp Metabaru are expected to be deployed.

⁴ The Patriot PAC-3 system is one of the air defense systems for countering airborne threats. Unlike the conventional type of anti-aircraft PAC-2 missiles, which mainly intercepts aircraft and other targets, the PAC-3 missiles are designed primarily to intercept ballistic missiles.

⁵ JADGE is a core system for the command and control as well as communication functions. It centrally processes the information regarding aircraft captured by radars installed nationwide, and it provides fighters instructions required for scrambling against aircraft intruding into Japanese territorial airspace and air defense combat operations. In addition, it controls Patriot and radar, etc., in responses to ballistic missiles.

Fig. III-1-2-3 Comprehensive Air and Missile Defense [image]

- Establish a structure with which to conduct integrated operation of various equipment pieces for air defense of each SDF service, not limited to those for missile defense
- Ascertain the status of operations in common by linking to JADGE* via a network
- Simultaneously deal with multiple, complex airborne threats under unified command and control (allocation and direction of optimal means for interception, etc.) through JADGE



*JADGE (Japan Aerospace Defense Ground Environment) is a core system for the command and control as well as communication functions. It centrally processes the information regarding aircraft captured by radars installed nationwide, and it provides fighters with instructions required for scrambling against aircraft intruding into Japanese territorial airspace and air defense combat operations. In addition, it controls Patriot and radar, etc. in response to ballistic missiles.



MSDF Aegis ship conducting a ballistic missile interception test

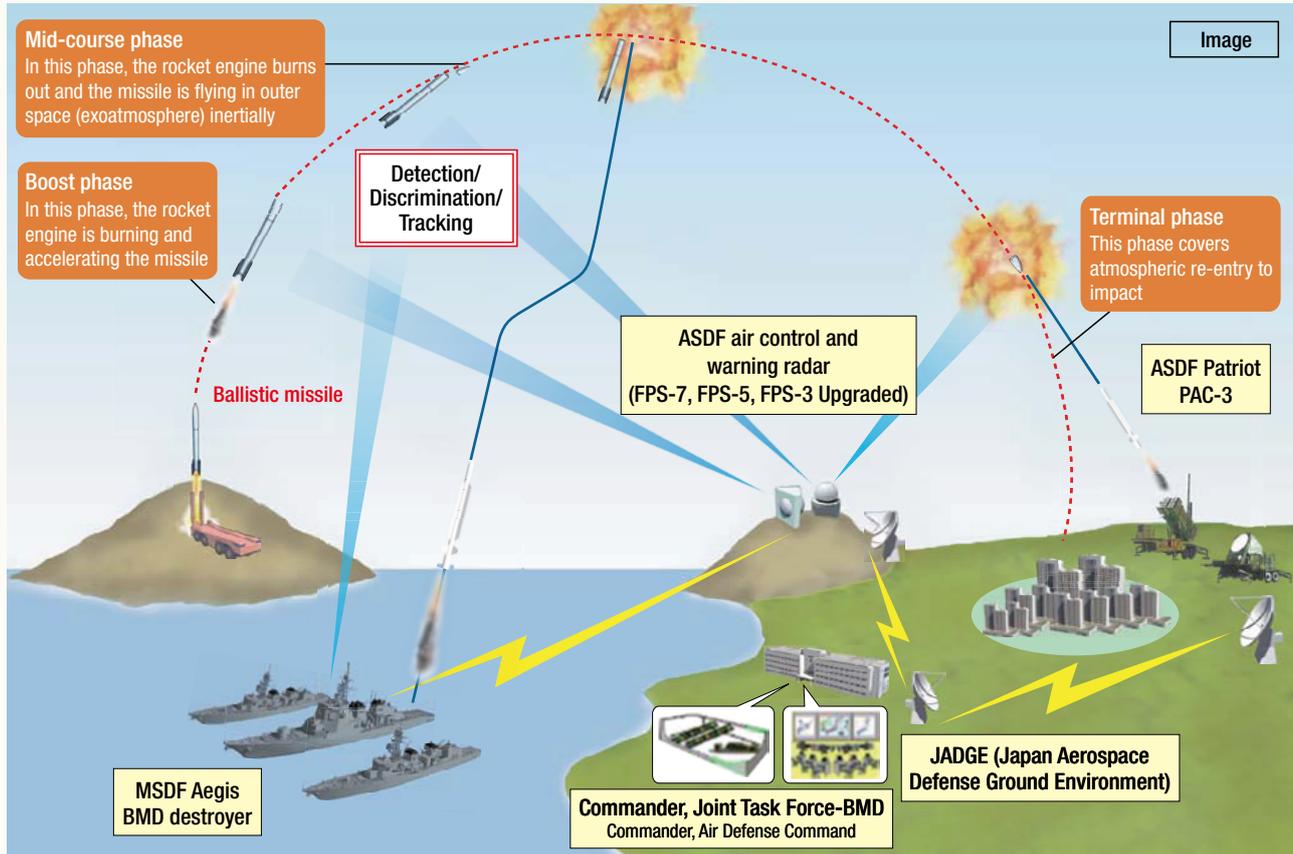
complex and diverse, including Hypersonic Glide Vehicles (HGVs), ballistic missiles equipped with multiple/maneuverable warheads, high-speed and longer-range cruise missiles, and stealth and multi-role aircraft. In order to effectively and efficiently counter these airborne threats by optimum means and minimize damage, it is necessary to establish a structure to conduct

integrated operation of various equipment for missile defense and air defense equipment that each SDF service has separately used, thereby providing nation-wide protection and also enhancing the comprehensive air and missile defense capability that can simultaneously deal with multiple, complex airborne threats. In this regard, the SDF will strive to standardize and streamline the means for interception that each SDF service possesses, including their maintenance and supply systems.

In case ballistic missiles or other objects are launched against Japan as an armed attack, it will be dealt with by issuing a defense operation order for armed attack situations. On the other hand, when such a situation is not yet acknowledged as an armed attack, Japan will take measures to destroy the ballistic missiles.

As a response against ballistic missiles or other objects, the Joint Task Force-BMD will be formed with the Commander of the Air Defense Command serving as its Commander, and effective defenses will be taken under a unified command through JADGE.

Fig. III-1-2-4 Build-up and Operational Concept of BMD [image]



From the perspective of deterring ballistic missile attacks, etc., and preventing damage from those attacks, the MOD will continue to actively participate in examinations held by the Cabinet Secretariat in particular on the development of evacuation facilities equipped with the necessary functions to protect the lives and bodies of citizens from armed attack situations from ballistic missiles, etc.

See Fig. III-1-2-3 (Comprehensive Air and Missile Defense [image])
 Fig. III-1-2-4 (Build-up and Operational Concept of BMD [image])
 Reference 14 (History of Efforts for BMD Development in Japan)

(2) Response by the MOD/SDF

Since 2016, North Korea has conducted three nuclear tests and launched more than 90 ballistic missiles and others. These military activities pose grave and imminent threats to Japan’s security.

The MOD/SDF continues to carefully monitor

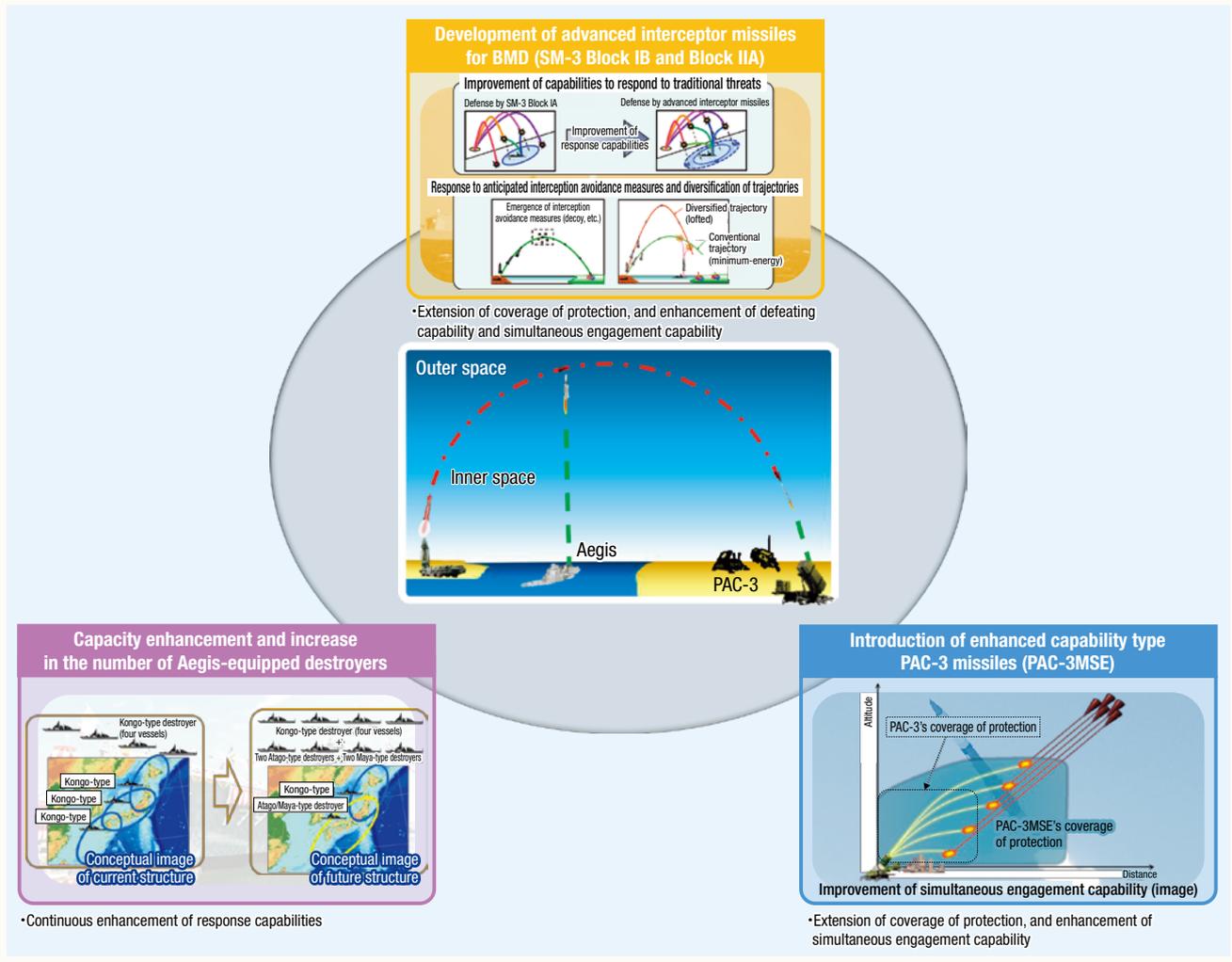
the concrete actions of North Korea toward the dismantlement of weapons of mass destruction and missiles, and conducts the necessary intelligence, monitoring and surveillance activities, and other necessary activities while closely cooperating with the United States and other countries.

Further cooperation with the U.S. Government including the U.S. Forces in Japan is essential for efficient and effective operation of the BMD system. Thus, related measures including constant real-time sharing of BMD operational and relevant information, and the expansion of BMD cooperation have been agreed upon at the Japan-U.S. Security Consultative Committee (“2+2” Meeting).

Furthermore, Japan has closely cooperated with the United States in responding to ballistic missiles, by means such as receiving Shared Early Warning (SEW)⁶ from the U.S. Forces, and sharing intelligence gathered by assets including transportable BMD radar (TPY-2 radar) and Aegis-equipped destroyers deployed in Japan

⁶ Information on the area and time of launch, the projected area and time, where and when objects fall relating to ballistic missiles launched in the direction of Japan, which is analyzed and conveyed to the SDF by the U.S. Forces in a short period of time after the launch (The SDF started to receive the information in April 1996).

Fig. III-1-2-5 Major Efforts to Improve Ballistic Missile Response Capabilities



by the U.S. Forces.

(3) Initiatives towards Strengthening of the BMD System

Currently the SDF maneuvers and deploys, according to situation, Aegis-equipped destroyers for defense of the entire territory of Japan and PAC-3, which is deployed across the country for the defense of stationing locations. Based on these actions, the MOD/SDF has been increasing Aegis destroyers with BMD capabilities.

The number of Aegis destroyers with BMD capabilities increased from the existing six to eight in FY2020.

Meanwhile, Japan and the United States are jointly developing advanced interceptor missiles for BMD (SM-3 Block IIA), which will be the successor to SM-3 Block IA to be mounted on Aegis-equipped destroyers, and promoting the project to its deployment, in order to deal with future threats posed by increasingly advanced and diverse ballistic missile attacks. At the National



MOVIE: SM-3 Block IB missile launch test from an Aegis-equipped Atago-class destroyer (September 12, 2018)

URL: <https://youtu.be/abYJRboZnc0>



MOVIE: Operation of the BMD system (ASDF: the latest PR video - UNIT-4 anti-aircraft)

URL: <https://youtu.be/coZf5SbfC-M>



Security Council 9-Minister Meeting in December 2016, a decision was made to transition to joint production and the deployment phase. Since the FY2017 budget, SM-3 Block IIA acquisitions are ongoing.

In comparison with the previous SM-3 Block IA missiles, these SM-3 Block IIA missiles have not only extended interceptable altitude and coverage of protection, but also have enhanced defeating capability and simultaneous engagement capability.

In addition, the interception capabilities of SM-3 Block IIA have been enhanced against ballistic missiles equipped with interception avoidance measures such as a decoy and ballistic missiles launched with an intention to avoid being intercepted by taking a higher than nominal trajectory (lofted trajectory).⁷

Furthermore, the Cabinet approved the development of two Aegis system-equipped vessels instead of the land-based Aegis system (Aegis Ashore) in December 2020, as part of measures to be taken to respond more flexibly and effectively to the increasingly severe security environment surrounding Japan. The ships will be maintained by the MSDF, and their details, including functions to be added to the ships and design plans, will continue to be examined and necessary measures will be taken.

With regard to Patriot PAC-3, the MOD has been working for procurement of the enhanced capability type, PAC-3 MSE (Missile Segment Enhancement) and started its deployment at the end of FY2019. Introduction of PAC-3 MSE will realize the extension of interception altitude from less than 20 km to tens of km, meaning that the coverage of protection (area) will expand more than twice compared to the conventional PAC-3.

Furthermore, the MOD/SDF decided to prepare effectively for the new kind of aerial threats including hypersonic weapons.

At the Japan-U.S. “2+2” Meeting in January 2022,

the two countries agreed to conduct a joint analysis focused on future cooperation in counter-hypersonic technology.

In this way Japan is taking measures necessary to strengthen its protection structure and will continue these efforts.

 See Fig. III-1-2-5 (Major Efforts to Improve Ballistic Missile Response Capabilities)

2 Missile Defense of the United States and Japan-U.S. BMD Technical Cooperation

(1) Missile Defense of the United States

The United States is developing a multi-tier missile defense system that combines defense systems suited for each of the following phases of the ballistic missile flight path to provide a mutually complementary response: (1) the boost phase, (2) the mid-course phase, and (3) the terminal phase. Japan and the United States have developed close coordination concerning ballistic missile defense, and a part of the missile defense system of the United States has been deployed in our country in a step-by-step manner.⁸

(2) Japan-U.S. BMD Technology Cooperation, etc.

The government commenced a Japan-U.S. cooperative research project on a sea-based upper-tier system in FY1999. As the result showed good prospects for resolving initial technical challenges, in December 2005, the then Security Council and the Cabinet decided to start Japan-U.S. cooperative development of an advanced ballistic missile interceptor by using the results of the project as a technical basis.⁹ The joint development started in June 2006 with a view to expanding the coverage of protection and dealing with future threats posed by increasingly advanced and diverse ballistic missile attacks.

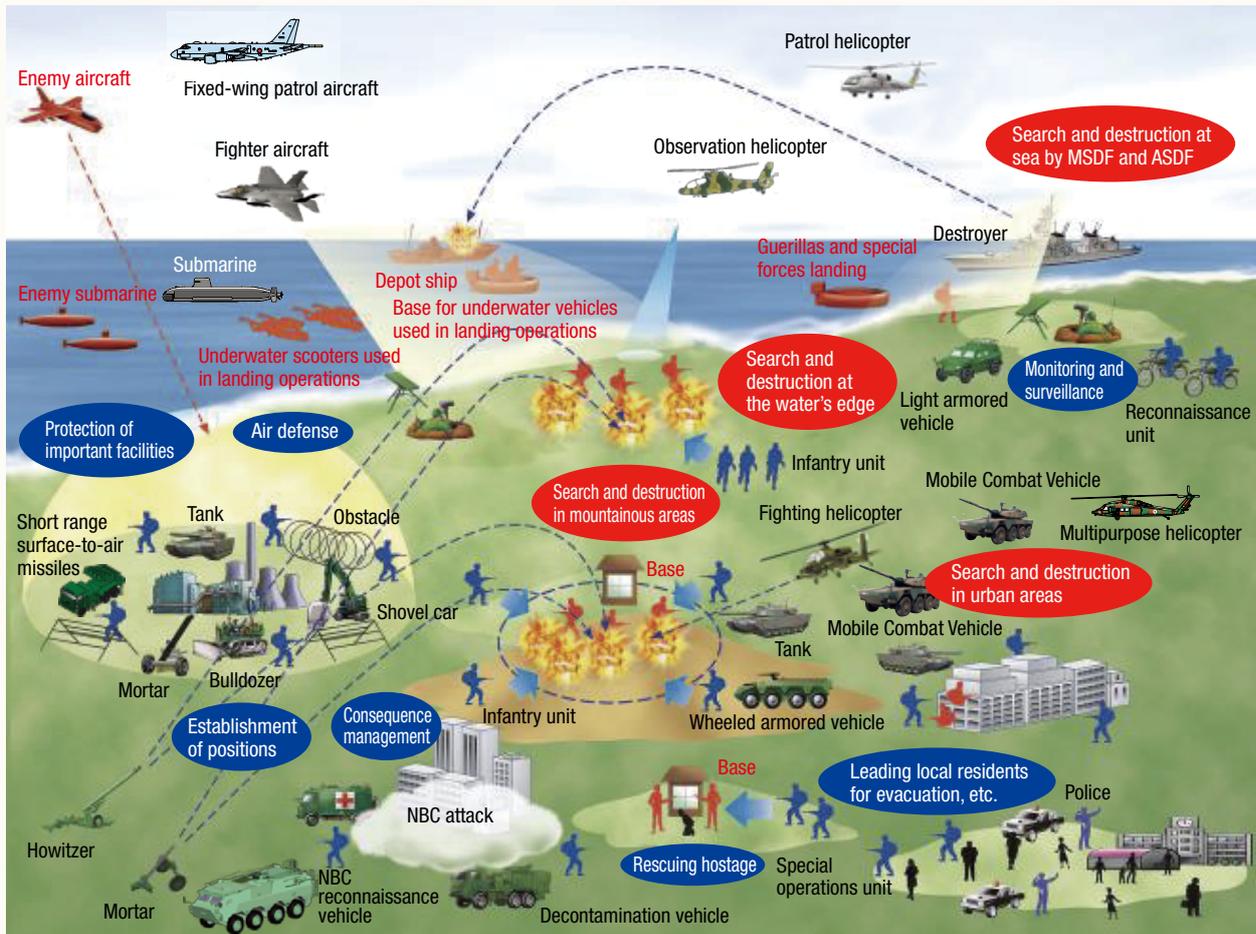
⁷ By taking a higher trajectory than minimum energy trajectories (trajectories that enable efficient flying of a missile and maximize its range), it takes a shorter range than the maximum range, but the falling speed of the missile becomes faster.

⁸ Specifically, a TPY-2 radar (so-called X-band radar) for BMD has been deployed at the U.S. Shariki Communication Site in 2006. In October 2006, Patriot PAC-3 units were deployed in Okinawa Prefecture, and in October 2007, a Joint Tactical Ground Station (JTAGS) was deployed in Aomori Prefecture. Furthermore, the 2nd TPY-2 radar was deployed at the U.S. Kyogamisaki Communication Site in December 2014. In October 2018, the 38th Air Defense Artillery Brigade Headquarters was deployed in Sagami-hara. In addition, BMD-capable Aegis ships of the U.S. Forces were deployed at Commander Fleet Activities, Yokosuka (Yokosuka City, Kanagawa Prefecture) in October 2015, March 2016 and May 2018.

⁹ With regard to the Japan-U.S. cooperative development, it is necessary to export BMD related arms from Japan to the United States. In accordance with the Chief Cabinet Secretary's statement issued in December 2004, it was determined that the Three Principles on Arms Exports would not apply to the BMD system and related matters under the condition that strict controls are maintained. Based on these circumstances, it was decided that the prior consent of Japan could be given to the third party transfer of the SM-3 Block IIA under certain conditions. This decision was formally announced in the Joint Statement of the Japan-U.S. Security Consultative Committee (2+2 Meeting) in June 2011. The Three Principles on Transfer of Defense Equipment and Technology (Three Principles) received Cabinet approval in April 2014. However, with regard to exceptional measures instigated before this decision, overseas transfers will continue to be organized in the guidelines for the principles as allowable under the Three Principles.

Fig. III-1-2-6

Example of Operations against the Attacks by Guerillas and Special Forces



In February and June 2017, Japan and the United States conducted tests of the SM-3 Block IIA interceptor

in waters off Hawaii. Analysis of the test data confirmed that it meets all performance requirements.

3 Response to Attacks by Guerillas, Special Operations Forces and Others

In Japan, where most of the towns and cities are highly urbanized, even small-scale infiltrations and attacks can pose a serious threat against the country's peace and security. These cases refer to various mode and forms including illegal activities by infiltrated foreign armed agents,¹⁰ etc., and sabotage carried out by foreign guerillas or special forces, which can be deemed as an armed attack against Japan.

1 Basic Concept

In the stage where the actual situation of intruders and the details of the ongoing case are not clear, the police

primarily respond to the situation, while the MOD/SDF will collect relevant information and reinforce the security of the SDF facilities. When the situation is clearer and can be dealt with by the general police force, various forms of assistance such as transportation of police officers and provision of equipment to the police force will be carried out. If the case cannot be dealt with by the general police force, then public security operations by the SDF will be implemented. Furthermore, if it has been confirmed that an armed attack is being carried out against Japan, the SDF will respond under a defense operation order.

¹⁰ Refers to persons committing illegal acts such as subversive activities in Japan while possessing weapons with significant wounding and killing power.

2 Responses to Attacks by Guerrillas and Special Operations Forces

Typical forms of attacks by guerrillas or special forces include the destruction of critical private infrastructure and other facilities, attacks against people, and assassinations of dignitaries.

In dealing with attacks by guerrillas or special forces, the MOD/SDF will respond with a particular emphasis on the establishment of a relevant information gathering posture, monitoring and surveillance to prevent invasions in coastal areas, protection of key facilities, and search and destruction of invading guerrillas or special forces. Efforts will be made for early detection of attacks and indications through monitoring and surveillance, and, as required, the SDF units will be deployed to protect key facilities, such as nuclear power plants, and the necessary posture for protection will be established at an early stage. Based on this, in the event of an infiltration of our territory by guerrillas or special operations forces, they will be searched for and detected by reconnaissance units, aviation units and others, and combat units will be promptly deployed to besiege and capture or to destroy them.

 **See** Fig. III-1-2-6 (Example of Operations against the Attacks by Guerrillas and Special Forces)

3 Response to Armed Agents

(1) Basic Concept

While the police assume primary responsibility for responding to illegal activities of armed agents, the SDF will respond in accordance with situational developments. When this happens, the SDF cooperates with the police force. Accordingly, with regard to public security operations of the SDF, the Basic Agreement¹¹ concerning cooperation procedures between the SDF and the police, as well as local agreements between GSDf divisions/brigades and prefectural police forces, have been concluded.¹²

(2) Initiatives of the MOD/SDF

GSDf has been conducting field training nationwide with the prefectural police, in an effort to strengthen



GSDf personnel engaging in a ground combat training

such collaboration by conducting field exercises at nuclear power plants throughout the country since 2012. Furthermore, joint exercises in dealing with suspicious vessels have also been conducted regularly between the MSDF and the Japan Coast Guard.

4 Response to Nuclear, Biological, and Chemical Weapons

In recent years, there has been strong recognition of the danger of NBC (Nuclear, Biological, and Chemical) weapon proliferation, which can cause indiscriminate mass casualties and contamination of an extensive area, and the means for transporting such weapons, as well as related equipment and materials, to terrorists and countries under suspicion of proliferating such weapons.

The sarin gas attack on the Tokyo subway in March 1995 is one of the examples of an incident in which these weapons were used.

(1) Basic Concept

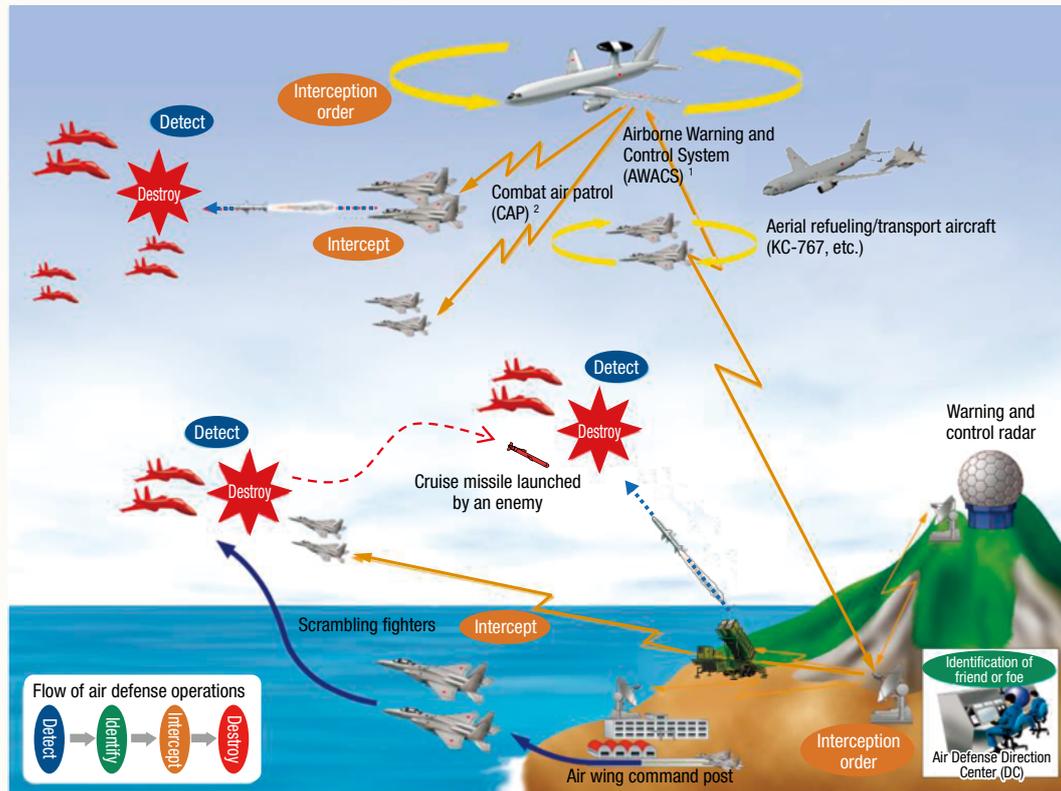
In the event of the use of NBC weapons in Japan in a way that corresponds to an armed attack, the SDF will conduct defense operations to repel the armed attack and rescue victims. Furthermore, in the event of the use of NBC weapons in a way that does not correspond to an armed attack but against which the general police alone cannot maintain public security, the SDF will conduct public security operations to suppress the armed group and rescue victims in cooperation with related agencies. Furthermore, when the incident does not fall under

¹¹ The Agreement on the Maintenance of Public Order in the Event of Public Security Operations, which was concluded between the then Defense Agency and the National Public Safety Commission (concluded in 1954 and fully revised in 2000).

¹² In 2004, guidelines were jointly formulated between the National Police Agency and the Defense Agency concerning dealing jointly with public security operations in the event of armed agent incidents.

Fig. III-1-2-7

Example of Air Defense Operations



Notes: 1. Aircraft with airborne warning and control functions in waters distant from its national land and with alternative control capabilities for defense ground environments

2. Keeping armed fighters on an airborne alert so that they can immediately respond to approaches by enemy aircraft

the category of defense operations or public security operations, the chemical and medical protection units of the GSDF and other units will cooperate with relevant organizations in information gathering concerning the extent of the damage, decontamination activities, transportation of the sick and injured, and medical activities through disaster relief and civil protection dispatches.

(2) Initiatives of the MOD/SDF

The MOD/SDF possesses and maintains the GSDF

Central Nuclear Biological Chemical (NBC) Weapon Defense Unit and the Countermeasure Medical Unit as well as increasing the number of chemical and medical protection unit personnel, in order to improve the capability for responding to NBC weapon attacks. Also, the GSDF has designated initial response personnel who remain ready to mobilize quickly in the event of extraordinary disasters.

The MSDF and the ASDF have also acquired protective equipment and materials to be used on vessels and at bases.

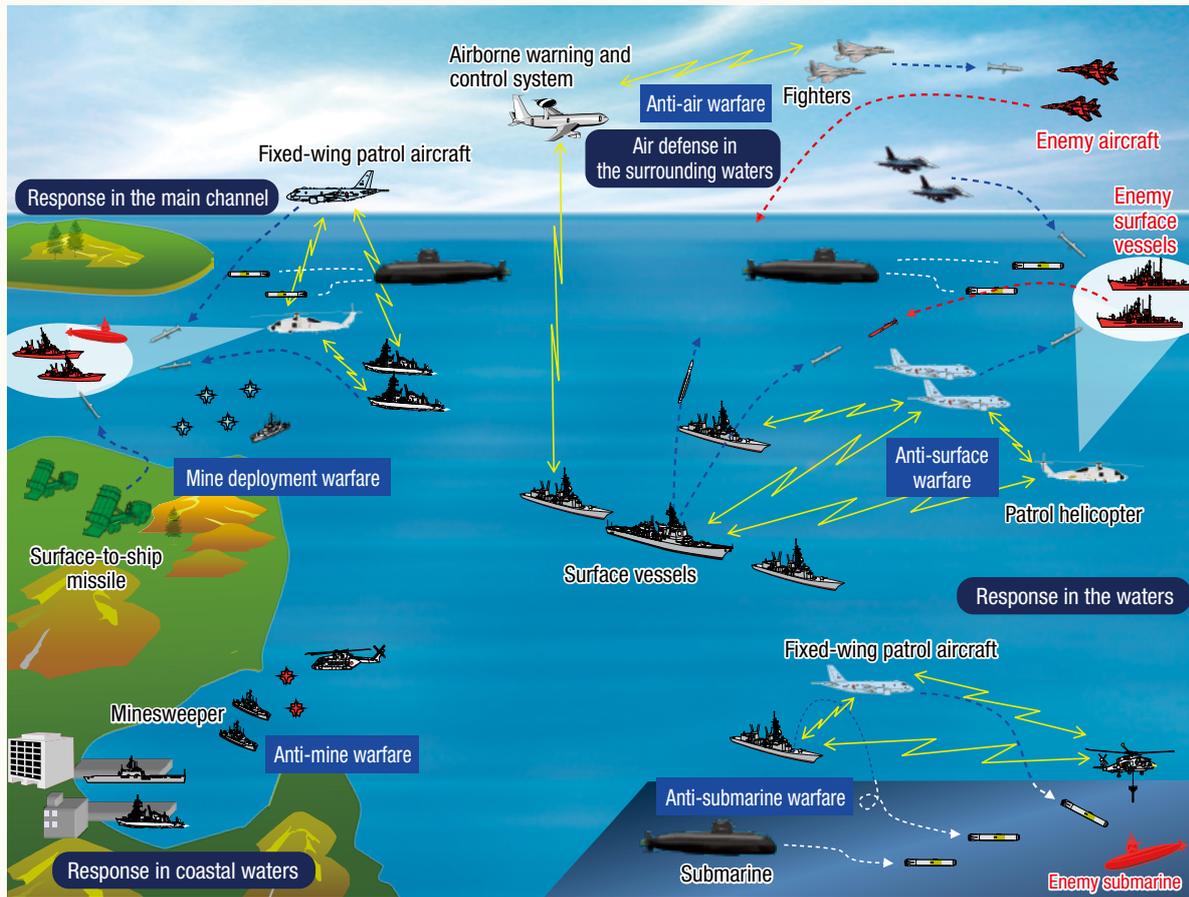
4 Readiness against Invasion

The NDPG states that only the necessary level of readiness against land invasions involving the mobilization of large ground forces, which was expected primarily during the Cold War, will be retained.

In the event of a military attack on Japan, the SDF will respond with defensive mobilization. Their operations are categorized into (1) operations for aerial

air defense operations, (2) defense operations protecting waters around Japan, (3) operations protecting the land, and (4) operations ensuring security in maritime communication, based on the characteristic of their purposes. In executing these operations, the U.S. Forces will assist the operations implemented by the SDF and deploy operations to complement the capabilities of the

Fig. III-1-2-8 Example of the Strategy for Defending Sea Areas Surrounding Japan



SDF, including the use of striking power, in line with the Guidelines for Japan-U.S. Defense Cooperation.

1 Air Defense Operations

Based on the geographic features of Japan, in that it is surrounded by the sea, and the features of modern wars,¹³ it is expected that at first, a sudden attack against Japan will be exercised by aircraft and missiles, and such aerial attacks are assumed to be conducted repeatedly, in the case where a full-scale invasion against Japan occurs. Operations for aerial defense aim to deal with enemy aerial attacks at the farthest point from our territory, prohibiting enemies from gaining air superiority and preventing harm to the people and the sovereign territory of Japan. At the same time, efforts will be made to inflict significant damage on the enemy thus making the continuation of their aerial attack difficult.

See Fig. III-1-2-7 (Example of Air Defense Operations)

2 Defense Operations Protecting Waters Surrounding Japan

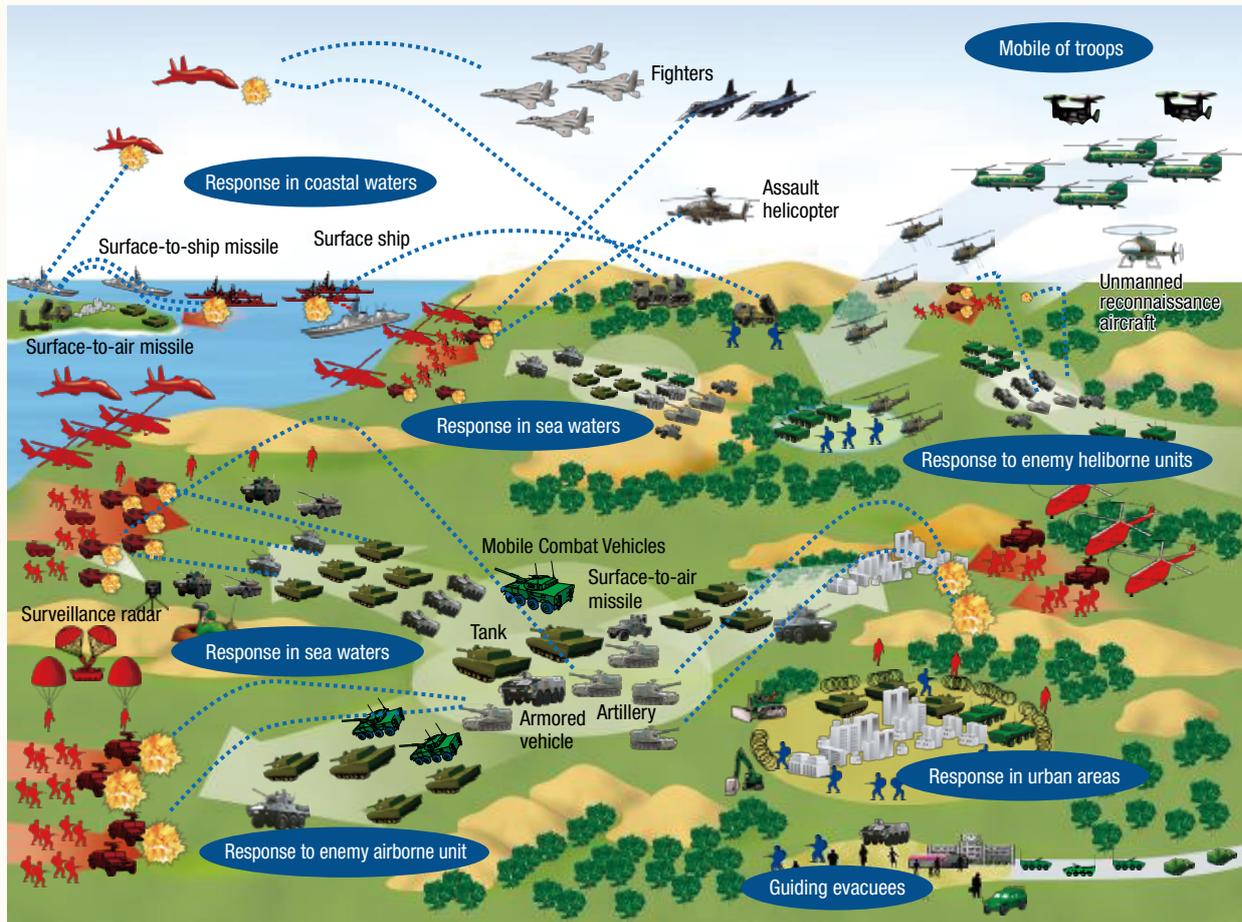
If an armed attack is carried out against Japan, which is an island country, aerial attacks are expected to be combined with attacks against our ships and territory by enemy destroyers. In addition, transport vessels could be deployed to enable massive enemy ground forces to invade our territory. Our defense operations protecting the waters surrounding Japan are composed of measures at sea, measures in waters around our coasts, measures in major straits, and aerial defense above waters around Japan. We will protect the waters around our country by combining these multiple operations, blocking the invasion of our enemies, and attacking and depleting their combat capabilities.

See Fig. III-1-2-8 (Example of the Strategy for Defending Sea Areas Surrounding Japan)

¹³ Aerial attacks are important elements influencing the results of modern wars. It is vital to obtain air superiority before or at the same time as implementing ground or maritime operations.

Fig. III-1-2-9

Example of Operations for Coping with the Landing of Invading Forces



3 Operations Protecting the Land

In order to invade the islands of Japan, invading countries are expected to gain sea and air superiority, followed by the landing of ground troops from the sea and airborne troops from the air.

For invading ground and airborne troops, it tends to be difficult to exert systematic combat capabilities while they are moving on their vessels or aircraft or right before or after they land in our territory. As we protect our land, we need to make best use of this weakness to deal with our enemies between coastal and sea areas or at landing points as much as possible and attack them at an early stage.

See Fig. III-1-2-9 (Example of Operations for Coping with the Landing of Invading Forces)

4 Operations Ensuring Security in Maritime Transportation

Japan depends upon other countries for the supply of much of its resources and food, making maritime transportation routes the lifeblood for securing the foundation of our existence and prosperity. Furthermore, if our country comes under armed attack, etc., maritime transportation routes will be the foundation to maintain continuous warfare capabilities and enable the U.S. Forces to come and assist in the defense of Japan.

In operations to ensure the safety of our maritime transportation, the SDF will combine various operations such as anti-sea, anti-submarine, anti-air and anti-mine operations to patrol,¹⁴ defend SDF ships, and protect straits and ports, as well as setting up sea lanes¹⁵ to directly defend Japanese ships, etc. Aerial defense (anti-air operations) for Japanese ships on maritime

¹⁴ The act of systematically monitoring a specific area with the purpose of gathering information and intelligence to prevent a surprise attack by an opposing force.

¹⁵ Relatively safe marine areas defined to enable the transportation of ships. The locations and width of sea lanes change depending on the situation of a specific threat.

transportation routes will be conducted by destroyers, and support from fighter jets and other aircraft is

provided as required.

5 Initiatives Related to the Protection of Civilians

1 Basic Policy on the Protection of Civilians and the Role of the MOD/SDF

In March 2005, based on Article 32 of the Civil Protection Act, the government established the Basic Guidelines for the Protection of the People. It anticipates four types of armed attack: (1) a land invasion, (2) an attack by guerrillas or special forces, (3) a ballistic missile attack, (4) an air attack, and points to consider taking measures to protect civilians depending on the type of attack.

The MOD/SDF, based on the Civil Protection Act and the Basic Guidelines, have developed a Civil Protection Plan of the MOD and the Acquisition, Technology and Logistics Agency. This plan stipulates that in a situation where Japan is under attack, the SDF would make utmost efforts to fulfill its basic task of repelling the attack. It also states that, within the scope of no hindrance to the task, the SDF would do as much as possible to protect civilians through support on evacuation and disaster relief.

2 Initiatives of the MOD/SDF to Facilitate Measures for Civilian Protection

(1) Civil Protection Training

For sound and expeditious implementation of measures to protect civilians, it is important to conduct training

on a regular basis to ensure effective and efficient collaboration with concerned ministries, agencies and local governments. The MOD and the SDF hold exercises in cooperation with concerned ministries and agencies and with the participation of local governments and others. They also participate and cooperate in civil protection exercises held by other ministries, agencies and local governments.

 **See** Reference 15 (Participation of the MOD/SDF in Civil Protection Joint Training Exercises with Central and Local Government Bodies)

(2) Ongoing Collaboration with Local Governments

The MOD/SDF are establishing liaison departments in Regional Armies and Provincial Cooperation Offices to ensure ongoing and close collaboration with local governments and other bodies.

Civilian protection councils are also being established in local governments for comprehensive implementation of measures to protect civilians. Representatives of each branch of the SDF and Regional Defense Bureau officials have been appointed to the councils.

Moreover, local governments are recruiting retired SDF officers to serve as crisis managers. For example, they act as coordinators with the MOD/SDF, as well as developing and implementing joint action plans and exercises.

Section 3

Responses in the Domains of Space, Cyberspace and Electromagnetic Spectrum

Among the roles that must be served by Japan's defense capability as set forth in the NDPG, the approach to "(3) response in space, cyber and electromagnetic domains during all phases" is as follows.

In order to prevent any actions that impede its activities in space, cyberspace and electromagnetic spectrum domains, the SDF, on a steady-state basis, conducts persistent monitoring as well as collection and analysis of relevant information. In the event of the above-mentioned interference, the SDF will promptly identify incidents and take such measures as damage

limitation and recovery. In case of an armed attack against Japan, the SDF will, on top of taking these actions, block and eliminate the attack by leveraging capabilities in space, cyberspace and electromagnetic spectrum domains.

Furthermore, in light of society's growing dependence on space, cyberspace, and the use of the electromagnetic spectrum, the SDF will contribute to comprehensive, whole-of-government efforts concerning these domains under appropriate partnership and shared responsibility with relevant organizations.

1 Responses in Space Domain

1 The Whole-of-Government Approach

The National Space Policy Secretariat established in the Cabinet Office in April 2016 engages in the planning, drafting, coordinating, and other policy matters relating to the Government's development and use of space. In light of the environmental changes surrounding space policy and the new security policies stated in the National Security Strategy (NSS) that was approved by the Cabinet in 2013, the new Basic Plan on Space Policy was decided upon in June 2020. This Plan, which aims to make Japan become a self-sustained space-faring nation, set goals of (1) contributing to a wide range of national interests; and (2) strengthening the comprehensive foundations of Japan's space activities including industrial, scientific and technological bases. In particular, concerning the contributions to a variety of national interests, the plan states that Japan should advance: (1) ensuring space security; (2) contributing to disaster management, national resilience, and solving global issues; (3) creating new knowledge through space science and exploration; and (4) realizing economic growth and innovation for which space is the driving force.

Responding to Japan's progress in development and use of outer space, the Diet approved the Act on Ensuring

Appropriate Handling of Satellite Remote Sensing Data (Remote Sensing Data Act) and the Act on Launching of Spacecraft, etc. and Control of Spacecraft (Space Activities Act) in November 2016, and the Remote Sensing Data Act and part of the Space Activities Act went into effect in November 2017.

In addition, the Space Activities Act stipulates matters necessary to secure public safety and provide prompt protection of the victims from damages in Japan's space development and use, such as a launch permit system, obligation for reparation, and government compensation, and in November 2018 the Act went into effect.

Furthermore, in June 2021, the Diet approved the Space Resources Act, recognizing ownership rights to water, minerals, and other natural resources that exist on the moon and in outer space. The Act went into effect in December 2021.

2 Initiatives of the MOD/SDF

The complexity in outer space has recently been increasing, such as through the importance of outer space in security, the growing dependence of the economy and society on space systems, the increasing risks, the more active space activities from other countries and the

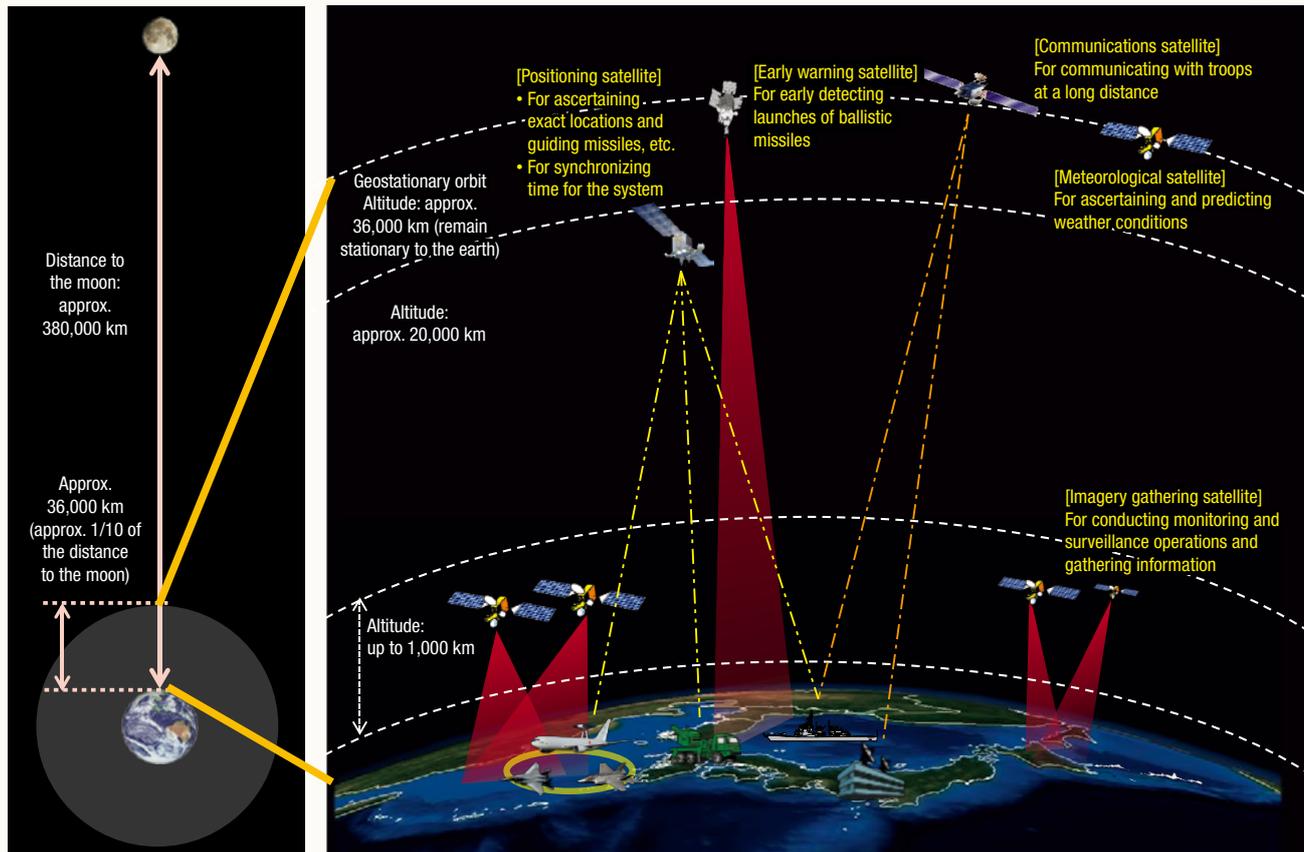


MOVIE: About the new organisation of the Space Operations Group

URL: <https://youtu.be/y1nvqwtJToE>

Fig. III-1-3-1

Conceptual Image of Utilization of Space in the Security Field



private sector, the increased crowding in space due to the full-scale launch of small satellite constellations for commercial use, the expansion of space activities, and the rapid evolution of science and technology.

Based on the Mid-Term Defense Program (MTDP), the MOD/SDF will work to enhance capabilities to ensure superiority in the use of space at all stages from peacetime to armed contingencies. The efforts include (1) establishing a Space Situational Awareness (SSA) system in order to secure the stable use of space; (2) improving various capabilities to leverage space domain including information-gathering, communication and positioning capabilities; (3) developing the capability to disrupt C4I (command, control, communication, computer, and intelligence) of opponents in collaboration with the electromagnetic spectrum domain; and (4) working to enhance cooperation with relevant agencies, including the Japan Aerospace Exploration Agency (JAXA), and with the United States and other relevant countries. The SDF will also engage in such organization building as the creation of units and a career field specializing in space, and is developing human resources and accumulating knowledge and expertise in the space domain.

See Fig. III-1-3-1 (Conceptual Image of Utilization of Space in the Security Field)

(1) Strengthening SSA

When using outer space, it is necessary to ensure its stable use. However, there has been a rapid increase in space debris. For example, in November 2021, the United States Armed Forces announced that over 1,500 pieces of traceable space debris had been generated by a satellite destruction experiment conducted by Russia. This raises the risk of significant damage to satellite functions caused by collisions between space debris and satellites.

In addition, it is pointed out that the development and verification test of killer satellites to approach a target satellite to disrupt, attack, and capture it is underway, increasing the threat to the space system on which Japan's security, economy, and society depend.

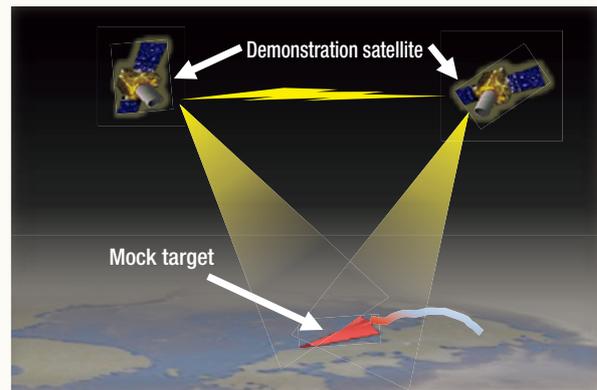
That is why the MOD, based on the Basic Plan on Space Policy and through cooperation with relevant government agencies and ministries, such as the JAXA, and the United States, etc., is aiming to strengthen SSA in order for the governments to work as a whole to monitor outer space and to accurately identify

Column

Study on Utilization of Satellite Constellations for Missile Defense

In recent years, the United States and other countries have been promoting a satellite constellation project in which a number of small artificial satellites perform various functions in unison. The project is expected to contribute to enhancing capabilities in gathering information from space and maintaining artificial satellite functionality in the event of damage. It has been indicated that some countries are developing hypersonic glide weapons (HGVs), which fly at low altitudes, high speeds, and in irregular orbits. Therefore, in FY2022, with collaboration with the United States in mind, the MOD will conduct surveys and research related to technical demonstrations necessary for realizing systems of detecting and tracking HGVs and similar from space using satellite constellations, as well as research on

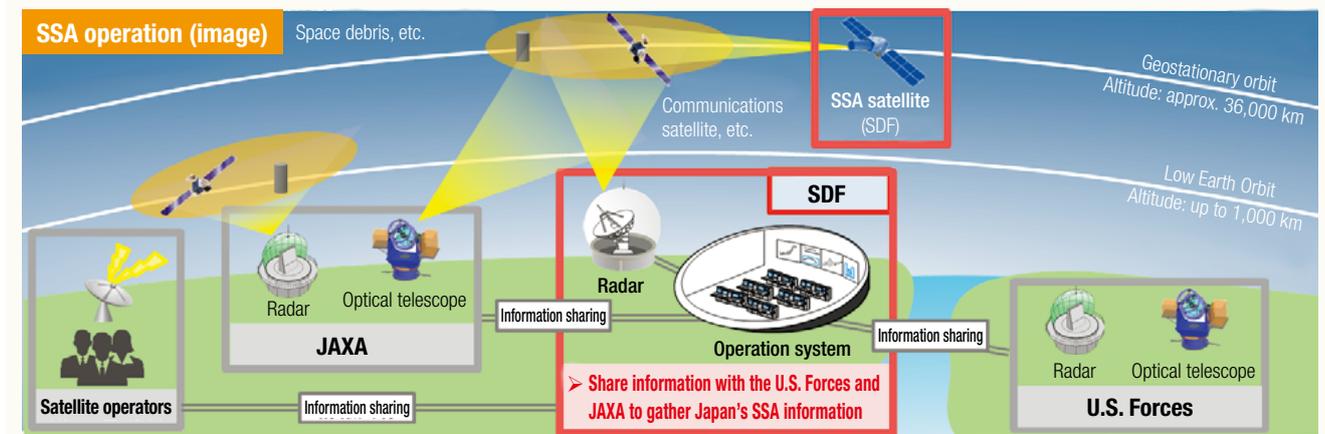
advanced infrared sensors.



Demonstrative device for HGV detection and satellite tracking (image)

Fig. III-1-3-2

Initiatives for Developing the SSA System



situations, and the ASDF will begin operating a Space Situational Awareness System (SSA system) from FY2023 onward. The ASDF's SSA system will monitor space debris and other threats to Japan's satellites by aggregating sensor data from ASDF and JAXA radars and telescopes, as well as information provided by the U.S. Space Command. There are also plans for the system to provide information on space conditions to private satellite operators as a free service.

In order to reinforce the Space Domain Mission Units, following the establishment of the Space Operations Squadron in May 2020, the ASDF established a new Space Operations Control Squadron, as well as a new Space Operations Group as the senior unit of the two squadrons in FY2021. In FY2022, the ASDF plans to organize the 1st Space Operations Squadron (tentative

name), 2nd Space Operations Squadron (tentative name), and Space Systems Management Squadron (tentative name) under this group. Of these, the 1st Space Operations Squadron (tentative name; Fuchu) will be in charge of operating the SSA system, and will also remotely operate the SSA radar currently under development in the radar area of the ASDF's Hofu Kita Air Base. The 2nd Space Operations Squadron (tentative name; Hofu Kita) will build up its posture for operating-system for detecting jamming against Japan's satellites. Finally, the ASDF is working to introduce the SSA Satellite and other equipment, with the goal of launching them by FY2026.

In order for the ASDF to operate the SSA system effectively, cooperation with the U.S. is essential. While making concrete arrangements regarding matters

of information sharing with the U.S., the ASDF is promoting efforts such as the deployment of SDF personnel to the U.S. Space Command and continued participation in Global Sentinel, a multilateral tabletop exercise on space situational awareness, and the Schriever Wargame, a multilateral tabletop exercise on space security, both of which are organized by the United States Armed Forces.

Through personnel exchanges across both the public and private sectors, the MOD is working to develop and utilize core human resources in the SSA field.

In addition, the MOD is promoting bilateral and multilateral cooperation with France, Australia, and other countries in order to build capacity related to SSA and strengthen future capacity.

 See Fig. III-1-3-2 (Initiatives for Developing the SSA System)

(2) Improving Various Capabilities to Leverage Space Domain Including Information-Gathering, Communication and Positioning Capabilities

While the MOD/SDF has conducted information-gathering, communication and positioning using satellites, from the perspective of strengthening Command, Control, Communication, Computer, Intelligence, Surveillance, Reconnaissance (C4ISR) functions, the MOD/SDF will ensure redundancy by receiving signals from multiple positioning satellites, including from the Quasi Zenith Satellite System (QZSS)¹, and by using commercial satellites, etc.

The MOD/SDF will strengthen its intelligence and surveillance capabilities through acquisition of multilayered satellite images such as by using Information Gathering Satellites (IGS) with the aim of a 10 satellite system, and by using commercial satellites such as small satellite constellations that enable frequent imaging.

It will also continue to use images from the satellite operated by JAXA (ALOS-2) and information from Automatic Identification System (AIS), etc., and will mount a sensor on JAXA's Advanced Land Observing Satellite-3 (ALOS-3) to conduct research on dual band infrared sensors.²

Regarding communications, the MOD/SDF launched

X-band defense communications satellites called Kirameki-2 in January 2017 and Kirameki-1 in April 2018, owned and operated by the MOD for the first time, to be used for the communications, which is essential for command and control in unit operations. Going forward, in order to respond to the increase in communication requirements and to further strengthen resiliency, the MOD is aiming for a system of three X-band defense communications satellites by launching Kirameki-3 and will be conducting research and study on next defense communications in FY2022.

With regard to positioning, the MOD/SDF mounts GPS receiving terminals on a large number of equipment and uses them as important means to support troop movement, including highly accurate self-positioning and improvement of missile guidance. In addition to these efforts, the QZSS of the Cabinet Office started service in November 2018. With this in mind, the MOD/SDF will secure redundancy by using multiple positioning satellite signals, including QZSS.

(3) Enhancing Capabilities to Ensure Superiority in Use of Space

While utilization of satellites plays a vital role as the basic infrastructure for security, some countries appear to be developing anti-satellite weapons, including killer satellites, anti-satellite missiles, and jamming weapons that interfere with electromagnetic waves. In this context, it is also important for the MOD/SDF to strengthen satellite resilience. Part of that effort is introducing system for detecting jamming against Japan's satellites.

The SDF will build the capability to disrupt C4I of opponents in coordination with the electromagnetic spectrum domain capabilities.

Furthermore, small satellite constellations are attracting attention as a technological trend related to missile detection, early warning, and tracking functions. The U.S. is moving forward with National Defense Space Architecture, a plan to launch hundreds or more of inexpensive small satellites for communications, positioning, reconnaissance, SSA, and missile tracking, and is currently preparing to launch a technology

¹ This refers to satellites set into orbit so that the satellites are capable of staying nearly right above one specific area by tilting the orbit and adopting an elliptical orbit, while ordinary stationary satellites stay in orbit on the equator. Multiple satellites are usually launched since a single satellite cannot stay online for 24 hours by itself. Users are able to receive signals from such satellites without being affected by obstacles, such as mountains and buildings, since the satellites pass nearly right above the users.

² Research is underway to mount dual wavelength infrared sensors with excellent detection and identification performance on the Advanced Optical Satellite planned at JAXA and activate them in the space environment.

demonstration satellite. The MOD believes that infrared observation from space using satellite constellations may be effective as a means of early detection and tracking of HGVs being developed and deployed by various countries, and that satellite constellations can also be expected to be extremely effective in fields such as communications and positioning. In September 2021, the MOD established the Task Force on Satellite Constellations, chaired by the State Minister of Defense, to discuss the ideal use of satellite constellations in the defense sector, while keeping cooperation with the U.S. in mind. At the same time, the MOD will promote the accumulation of technical knowledge through research on dual band infrared sensors and the research of future sensors such as high-sensitivity wideband infrared detection elements.

(4) Enhancing Cooperation with Relevant Agencies and with the United States and Other Relevant Countries

In order to ensure Japan's space security and the sustainable and stable use of outer space, while strategically cooperating with allies and friendly countries and from a comprehensive perspective that includes measures against space debris, etc., it

is necessary to play an even greater role in creating effective rules and to request each country's responsible behavior in outer space.

At the same time, in order to avoid the risks from misunderstanding and miscalculation, it is necessary to communicate the importance of strengthening communication among relevant countries and of implementing Transparency and Confidence Building Measures (TCBM) in outer space.

Also, for the MOD to promote space development and use effectively, it is essential to enhance cooperation with relevant agencies with advanced knowledge, including JAXA, and with the United States and other relevant countries.

From the perspective of further promoting cooperation in the space field between the defense authorities of Japan and the United States, the two countries established the "Japan-U.S. Space Cooperation Working Group (SCWG)" in April 2015 and so far held seven meetings. The SCWG continues to further promote consideration in broader fields such as: (1) promotion of space policy-related consultation, (2) closer information sharing, (3) cooperation for training and securing space experts, and (4) implementation of tabletop exercises.

2 Response in Cyber Domain

1 The Whole-of-Government Approach and Other Efforts

With regard to cybersecurity, the cases that were detected as suspicious communication to Japanese governmental organizations in FY2020 include 245 suspected malware infections and 15 targeted attacks. The actual threat level is still high, with the attack methods being increasingly advanced and sophisticated.³

As for organizations other than governmental organizations, multiple suspicious communications to private companies, including defense-related companies, have been confirmed.

In order to deal with the increasing threat to cybersecurity, in November 2014, the Basic Act on

Cybersecurity was enacted. The Act aims to contribute to the security of Japan by comprehensively and effectively promoting the measures regarding cybersecurity.

Accordingly, in January 2015, the Cybersecurity Strategic Headquarters was established in the Cabinet, and the National center of Incident readiness and Strategy for Cybersecurity (NISC)⁴ was established in the Cabinet Secretariat. The Cybersecurity Strategic Headquarters and NISC are responsible for planning and promoting cybersecurity-related policies and serving as the control tower in taking measures and responding to significant cybersecurity incidents in government organizations and agencies, as well as critical infrastructure.

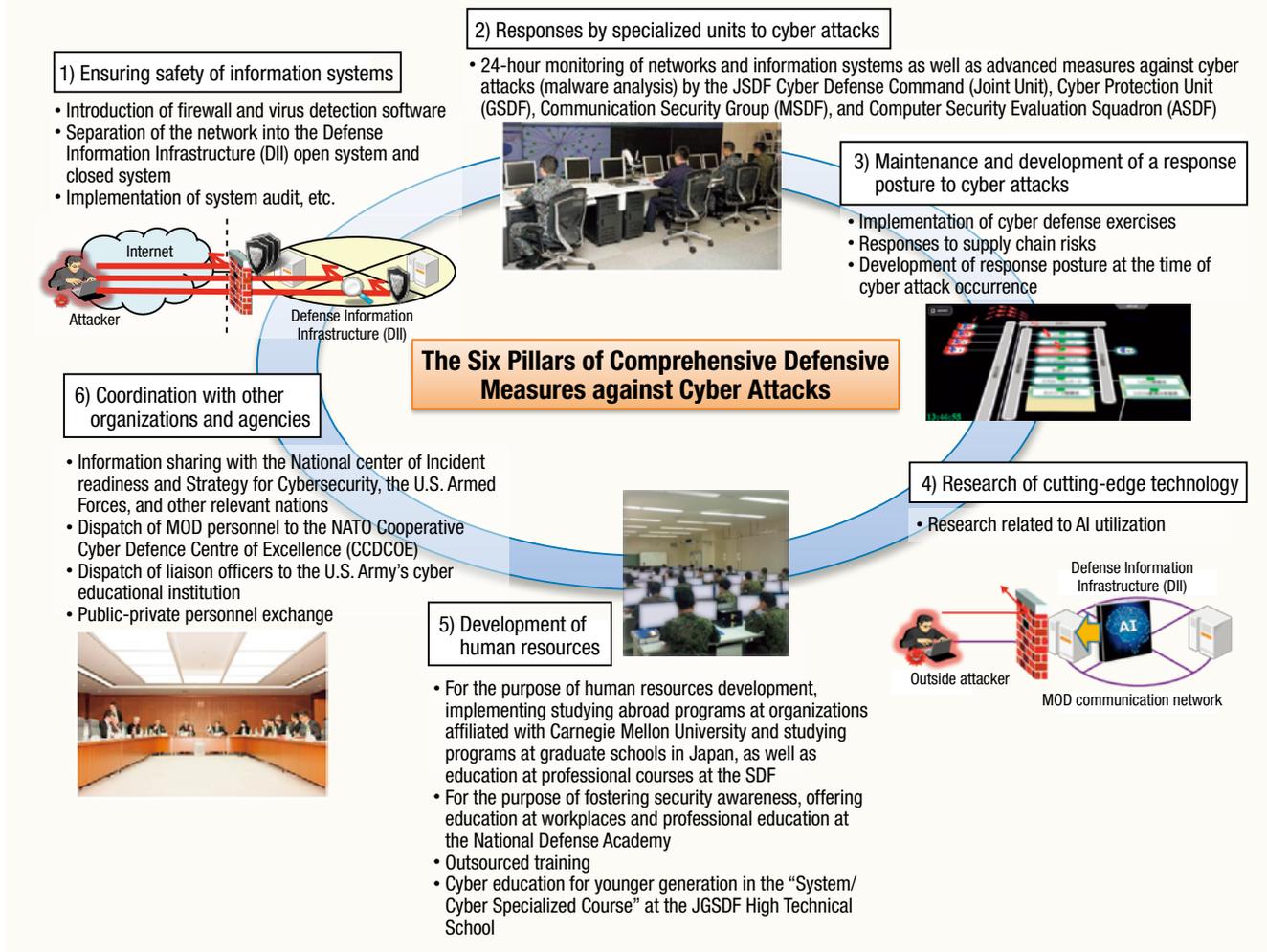
Furthermore, in September 2015, the Cybersecurity

³ Cybersecurity 2021 (approved by the Cybersecurity Strategic Headquarters on September 27, 2021).

⁴ With the enactment of the Basic Act on Cybersecurity in January 2015, the National Information Security Center (NISC) was reorganized as the National center of Incident readiness and Strategy for Cybersecurity (NISC). The NISC is responsible for the planning and promoting cybersecurity-related policies and serving as the control tower in taking measures and responding to significant cybersecurity incidents in government organizations and agencies, as well as critical infrastructures.

Fig. III-1-3-3

MOD/SDF Comprehensive Measures to Deal with Cyber Attacks



Strategy was formulated for the comprehensive and effective promotion of measures pertaining to cybersecurity, with the aims to create and develop a free, fair and secure cyberspace and subsequently contribute to improving socio-economic vitality and sustainable development, building a society where people can live safe and secure lives, and ensuring peace and stability of the international community and national security.

This strategy is intended to outline the goals and implementation policies for various cybersecurity measures to be taken over the next three years, and it was reviewed in July 2018 and September 2021. The current strategy, which is the third version, maintains the basic position presented in the previous two versions, while promoting measures based on three directions ((1) advancing digital transformation and

cybersecurity simultaneously; (2) ensuring the overall safety and security of cyberspace as it becomes public, interconnected and interrelated; and (3) enhancing initiatives from the perspective of national security) to ensure “a free, fair and secure cyberspace.”

2 Initiatives of the MOD/SDF

Information and communications networks that leverage cyberspace are a foundation for the SDF’s activities in various domains, and attack against them seriously disrupts the organized activities of the SDF.

The MOD/SDF are taking comprehensive measures such as (1) ensuring safety of information systems, (2) dealing with cyber attacks⁵ by specialized units, (3) maintenance and development of a response

⁵ Illegal intrusion, information theft, alteration or destruction, operation stop/malfunction of information system, execution of unauthorized program, DDoS (distributed denial of service) attacks, etc., which are made through cyberspace by abusing information communication networks, information systems, etc.

posture to cyber attacks, (4) research of cutting edge technologies, (5) development of human resources, and (6) coordination with other organizations and agencies, etc.

In this context based on the NDPG, the SDF will fundamentally strengthen its cyber defense capability, including the capability to disrupt the use of cyberspace by the opponents in the event of an attack against Japan in a contingency. Specifically, the MTDP stipulates (1) establishing the necessary environment for ensuring cybersecurity, (2) keeping abreast of the latest information including cyber-related risks, counter measures and technological trends, (3) developing and securing human resources, and also (4) contributing to whole-of-government initiatives.

 **See** Fig. III-1-3-3 (MOD/SDF Comprehensive Measures to Deal with Cyber Attacks)
Reference 16 (Efforts in Recent Years by the MOD on Cybersecurity)

(1) Establishing an Environment for Ensuring Cybersecurity

a. Establishment of the JSDF Cyber Defense Command
The NDPG and MTDP states the establishment of a “Cyber Defense Unit” as a joint unit so as to drastically strengthen cyber defense capabilities. Based on this, in FY2021, the JSDF Cyber Defense Command was newly established to deal with cyber attacks, as well as to conduct capacity building for the SDF’s cyber-related units, and maintain and operate the Defense Information Infrastructure (DII),⁶ a common network for the MOD/SDF.

b. Strengthening Capabilities of Information Gathering, Research and Analysis

In order to secure the functions of the system and networks of the MOD/SDF under any circumstance, it is necessary to strengthen the information gathering, research and analysis, and practical training functions that support this capability.

To this end, the MOD/SDF will continue initiatives such as (1) reinforcement of information gathering devices for indications and techniques of cyber attacks, (2) enhancement of response capabilities against cyber attacks utilizing AI and other advanced technologies, and (3) development of an environment for cyber exercises carried out as competition between an attacking team

and a defending team.

In addition, the MOD/SDF collects and analyzes cyberspace threats intelligence, such as by collecting information and exchanging information with other countries.

(2) Keeping Abreast of the Latest Information Including Risks, Countermeasures and Technological Trends

In order to respond to cyber attacks in a swift and appropriate manner, it is necessary to keep abreast of the latest information, including cyber-related risks, counter measures and technological trends, through cooperation with the private sector, and strategic talks, bilateral/multilateral exercises and other opportunities with allies and other parties. For this purpose, the MOD/SDF will effectively cooperate with private companies and foreign countries, including the United States, which is Japan’s ally.

a. Cooperation with Private Companies and Others

In Japan, in July 2013, the Cyber Defense Council (CDC) was set up with its member consisting of around ten companies in the defense industry with a strong interest in cybersecurity. With the MOD serving as the hub for information sharing among companies in the defense industry, efforts will be made to aggregate the information and to grasp the overall picture of cyber attacks. In addition, a joint training takes place annually, simulating a situation where the MOD/SDF, and defense industry are under cyber attacks as part of efforts to improve both of their response to cyber attack capabilities.

b. Cooperation with the United States

Since it is vital to have comprehensive defense cooperation, including joint response, between Japan and its ally the United States, the Japanese and U.S. governments, as their main framework for cyber cooperation, first set up the Cyber Defense Policy Working Group (CDPWG) as a framework between the defense authorities of Japan and the United States. Under this framework, meetings have been held seven times to discuss the following topics: (1) promotion of policy discussions regarding cyber issues, (2) closer sharing of information, (3) promotion of bilateral/multilateral exercises incorporating response to cyber

⁶ Common network for the entire SDF, with the information and communications infrastructure necessary to perform the SDF’s duties, which composes of data and voice communication networks by using various lines such as self-operated micro lines owned by the MOD, external lines rented from telecommunications carriers, and satellite lines.

attacks, and (4) matters such as cooperation for training and retaining experts.

In addition, Japan's cooperation with the United States is to be further strengthened by such means as participation in "the Japan-U.S. Cyber Dialogue," a whole-of-government framework by both nations, and holding "the Japan-U.S. IT Forum."

c. Cooperation with Other Countries etc.

The MOD has held the "Japan-NATO Cyber Defense Staff Talks" with the North Atlantic Treaty Organization (NATO) to exchange opinions on various issues related to cyberspace between defense authorities, and has continued to participate in cyber defense exercises organized by the NATO and the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE) to enhance cooperation and collaboration with the NATO.

In addition, Japan has held cyber dialogues with Australia, the United Kingdom, Germany, France, and Estonia.

Furthermore, the IT Forum has been held with the defense authorities of Singapore, Vietnam, and other countries to exchange views on initiatives in the information communications area including cybersecurity and current trends in technology.

In March 2022, the GSDF organized the Multilateral Cyber Security Competition to strengthen capabilities in the cyber domain together with participating countries, which included Australia, France, and the U.S.

(3) Development and Securing of Human Resources

In order to strengthen the SDF's cyber defense capability, securing human resources who possess advanced and broad-ranging knowledge on cybersecurity is an urgent issue. Proactive efforts, including the expansion of education and the utilization of civilian knowledge, are necessary.

In this context, personnel are continuously and by stages assigned to cyber-related departments, and provided with both internal and external education in order to acquire and maintain advanced knowledge and skills.

Common cyber training to acquire common and sophisticated knowledge on cybersecurity has been provided since FY2019 as a common educational course for all SDF services, and the SDF continues to dispatch

personnel to courses for cyber warfare commanders at the National War College in the U.S. In addition, from FY2021, a new System/Cyber Specialized Course has been established at the GSDF High Technical School, and personnel are being dispatched to a new cyber warfare planners course offered by the U.S. Army's cyber education institute.

Moreover, since July 2021, the MOD/SDF has been hiring people with advanced knowledge/skills and extensive experience/achievements in the cyber domain as Chief Cybersecurity Advisors.

The MOD/SDF also work to ensure appropriate treatment for security and IT personnel who work as a bridge between highly skilled professional workers and general administration departments in the MOD and consider the utilization of external human resources such as public-private personnel exchange system to employ people with practical experience in private companies and service contracts.

Furthermore, since cybersecurity depends on the cyber literacy of personnel who use networks and systems, not just specialized personnel with advanced knowledge, the MOD/SDF is promoting cyber literacy education, including information assurance training, for self defence officials and administrative officers.

(4) Contribution to the Whole-of-Government Initiatives

Along with the National Police Agency, the Digital Agency, the Ministry of Internal Affairs and Communications, the Ministry of Economy, Trade and Industry, and the Ministry of Foreign Affairs, the MOD, as one of the government agencies that are members of Cybersecurity Strategy Headquarters, participates in cyber attack response training and personnel exchanges, and provides information about cyber attacks, etc. to the cross-sector initiatives led by the NISC as well as sending personnel to the Cyber Incident Mobile Assistance Team (CYMAT).⁷ The MOD is considering applying the knowledge and experience of the SDF to penetration tests of the IT systems of government ministries and agencies conducted by the NISC.

⁷ Cyber Incident Mobile Assistance Team (CYMAT) : Team that provides technical support and advice to prevent the spread of damage, engage in recovery, investigate the cause, and obviate recurrence when an information security-related event occurs in need of a unified response by the government.

3 Response in Electromagnetic Spectrum Domain

Electromagnetic spectrum has been used for command/communication, and monitoring/surveillance. With the development of the technology, its use has expanded in range and purpose, and it is now recognized as a major operational domain situated on the frontline of the offense-defense dynamic in today's warfare.⁸

In such a situation, securing superiority in the electromagnetic spectrum domain is extremely important for strengthening deterrence and also the realization of cross-domain operations.

In response, the MOD/SDF, based on the NDPG, etc., will (1) enhance its ability to appropriately manage

VOICE Regarding the meanings and significance of the newly assigned Electronic Warfare Operations Unit

The Commander of the Electronic Warfare Operations Unit, the Electronic Warfare Operations Unit (Nerima Ward, Tokyo)

Colonel KADOTA Hiromitsu

The Electronic Warfare Operations Unit was newly formed under the Ground Component Command in March 2022 for the main mission of electromagnetic spectrum operations. With the National Defense Program Guidelines for FY2019 and beyond (NDPG) focusing on building a Multi-Domain Defense Force as one pillar to strengthen Japan's defense capabilities, this column will talk about the significance of setting up the Electronic Warfare Operations Unit as part of the Ground Self-Defense Force (GSDF) at this time.

As joint operations of the Self-Defense Forces (SDF) have been evolving since 2006 and the use of ICT has become a crucial element in intelligence gathering and command and control, it is becoming increasingly important to ensure the freedom of electromagnetic spectrum domains in the same way as cyberspace and space domains. In electromagnetic spectrum domains, a wide variety

of radio waves, such as public broadcasts, mobile phones, and many types of radars, are emitted in a heavily congested manner, creating a sensitive environment much like neural pathways. In this situation, constantly managing radio waves so that those necessary for the unit's command and control and intelligence gathering avoid crossing other radio waves and shaping electromagnetic spectrum domains like neural pathways against adversaries' attempts to block the freedom of the unit's actions is highly important in bringing about successful operations.

The GSDF has been accumulating knowledge on electronic warfare since the Showa period (1926–1989), and also has a track record of properly managing radio waves for maintaining communications when units assigned all over Japan carry out a variety of activities. The Electronic Warfare Operations Unit, in increasingly complex electromagnetic spectrum domains, will further develop the knowledge and proven performance it has accumulated thus far, aiming to become a professional group that can successfully accomplish missions in these domains.



The unit flag for the Electronic Warfare Operations Unit being conferred at its handover ceremony



Commander of the Electronic Warfare Operations Unit directing his troops

⁸ One of the attacks using electromagnetic waves is an electromagnetic pulse (EMP) attack, which places an extreme burden on electronics by generating instantaneous powerful electromagnetic waves through nuclear explosions and other means, leading to their malfunctioning or destruction. Since this type of attack would impact not just the defense field but Japanese people's lives in general, the Government of Japan as a whole will deliberate about necessary countermeasures against it.

Fig. III-1-3-4

Electronic Warfare Capabilities and Electromagnetic Spectrum Management Capabilities [image]

In order to effectively and proactively utilize electromagnetic spectrum, the following capabilities need to be enhanced.

- (1) Electronic warfare capabilities: capabilities to effectively and proactively utilize electromagnetic spectrum
- (2) Electromagnetic spectrum management capabilities: capabilities to appropriately manage and coordinate the use of electromagnetic spectrum by grasping the status of electromagnetic spectrum in the theater and preventing interference with the aim of securing electronic warfare capabilities

[Electronic attack]

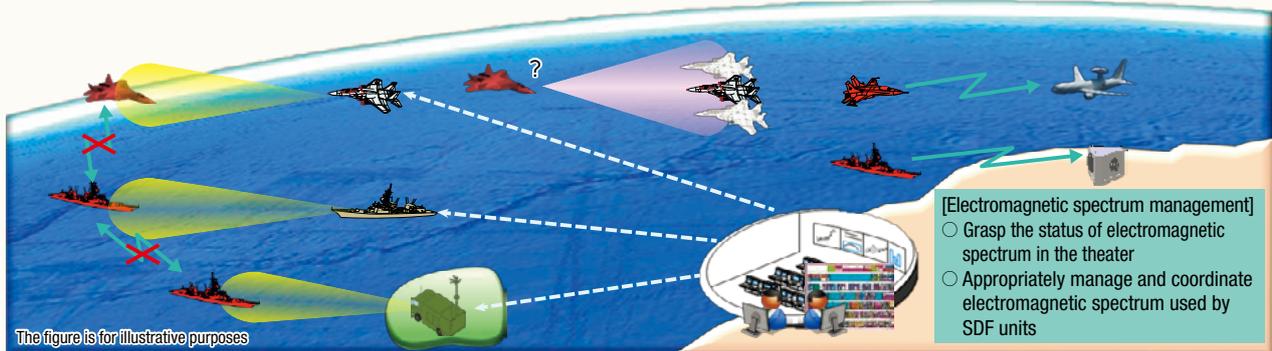
Emit electromagnetic waves to communication devices and radars of the other party, thereby reducing or disabling their communication, etc

[Electronic protection]

Reduce or nullify the influence of electromagnetic spectrum used by the other party by using stealth technology

[Electronic warfare support]

Collect and analyze such information as electromagnetic spectrum used by the other party



and coordinate the use of electromagnetic spectrum, (2) strengthen information collection and analysis capabilities related to electromagnetic spectrum, and develop an information sharing posture, (3) strengthen capabilities to neutralize the radar and communications of opponents who intend to invade Japan, (4) strengthen capabilities to minimize the effects of interference in the electromagnetic domain, and thereby acquire and enhance capabilities to ensure superiority in the electromagnetic domain.

1 Enhancing the Ability to Appropriately Manage and Coordinate the Use of Electromagnetic Spectrum

In order to gain an advantage in warfare by using electromagnetic spectrum proactively and effectively, it is necessary to establish an electromagnetic spectrum management posture that centrally grasps and coordinates wave frequencies and status of use, and appropriately allocates frequency resources to units, etc, as well as to improve electronic warfare capabilities.

For this purpose, the electromagnetic spectrum management function is being strengthened, such as through research on electromagnetic spectrum management support technologies to understand the status of the electromagnetic spectrum used by equipment communication devices, radar, and electronic warfare devices, etc., and visualize them on monitors.

See Fig. III-1-3-4 (Electronic Warfare Capabilities and Electromagnetic Spectrum Management Capabilities [image])

2 Strengthening Information Collection and Analysis Capabilities Related to Electromagnetic Spectrum, and Building an Information Sharing Posture

In order to gain an advantage in electromagnetic warfare, it is important to gather and analyze information on electromagnetic spectrum at all phases from peacetime to armed contingencies and appropriately share the information among the SDF units.

To this end, in FY2022, the MOD/SDF will increase the number of personnel of the electronic warfare operations units, which were newly formed in FY2021 under the Ground Component Command, deploy the GSDF's Network Electronic Warfare System (NEWS) at Camp Yonago and other locations, and begin necessary enhancements to reinforce the command and control of electronic warfare operation units deployed across Japan. In addition to acquiring the airframe components for ASDF RC-2 aircraft, and prior to developing the successor to the MSDF's multipurpose EP-3 aircraft, the MOD/SDF will research on information collection systems that utilize the latest technologies such as AI and continue to conduct research on the technical requirements and support systems, etc., necessary to incorporate AI, thereby strengthening



Meeting with the U.S. Marine Corps regarding acquiring F-35Bs



information collection and analysis capabilities in the electromagnetic spectrum domain. The MOD/SDF will also continue to promote the connection of each SDF service's systems, including the Defense Information Infrastructure (DII) and the improvement of data links.

3 Strengthening Capabilities to Neutralize Radar and Communications of an Opponent who Intends to Invade Japan

Neutralizing use of electromagnetic spectrum, including radar and communications of an opponent who intends to invade Japan based on information gathering and analysis in peacetime is effective as a means for the defense of Japan so that even when inferiority exists in individual domains such inferiority will be overcome and national defense accomplished.

To this end, under the FY2022 budget, the MOD/SDF will acquire NEWS, which supports the exercise of firepower by neutralizing an opponent's use of the electromagnetic spectrum to provide an advantage in various battles such as land battles, and promote the deployment of electronic warfare units equipped with NEWS. The MOD/SDF will also develop ASDF standoff electronic warfare aircraft that implement effective electromagnetic spectrum interference according to the interference target from outside an opponent's threat (standoff range) to support carrying out SDF air operations; and research ship-based electromagnetic spectrum detection and interference devices that can detect and identify the electromagnetic spectrum used by the radar and communications equipment on aircraft/

missiles and then disable them.

Furthermore, for effective response against the threat of swarm attacks that use a large number of drones, a budget has continually been included for the demonstration of high-power microwave irradiation technology and research on high-energy laser systems, etc.

4 Strengthening Capabilities to Minimize the Effects of Interference in the Electromagnetic Spectrum Domain

In order to minimize the effects of interference in the electromagnetic spectrum domain, thereby ensuring air superiority, the MOD/SDF is promoting the acquisition of F-35As with superior electronic protection capability. In addition, to improve flexibility in fighter operations, the MOD/SDF will acquire F-35Bs for their superior electronic protection capability and short takeoff and vertical landing capabilities.

5 Training/Exercise and Human Resource Development

To strengthen the SDF's capabilities in the electromagnetic spectrum domain and to develop personnel with specialized knowledge, in addition to conducting integrated electromagnetic spectrum operations training, the MOD/SDF is collecting the latest knowledge and expertise in the electromagnetic spectrum domain by dispatching personnel to participate in educational programs on electronic warfare held in the U.S.⁹

⁹ In addition, the MOD/SDF is advancing the multiplication of the communications network required for information sharing among the SDF services across Japan, and conducting research on EMP protection.

Section 4

Response to Large-Scale Disasters, etc. (Including response to COVID-19)

1 Response to Large-Scale Disasters, etc. (Including response to COVID-19)

When disasters such as natural disasters occur, the SDF works in collaboration with local governments, engaged in various activities such as the search and rescue of disaster victims or ships or aircraft in distress, controlling floods, offering medical treatment, preventing epidemics, supplying water, and transporting personnel and goods.

rapidly transport and deploy the SDF units required and if necessary, to sustain the mobilization for a long period. Not only will the SDF units respond to the needs of affected residents and local governments through care, proper collaboration and cooperation, but they will also be engaged with institutions concerned, local governments and the private sector to save lives, achieve urgent rehabilitation and support water supplies/bathing.

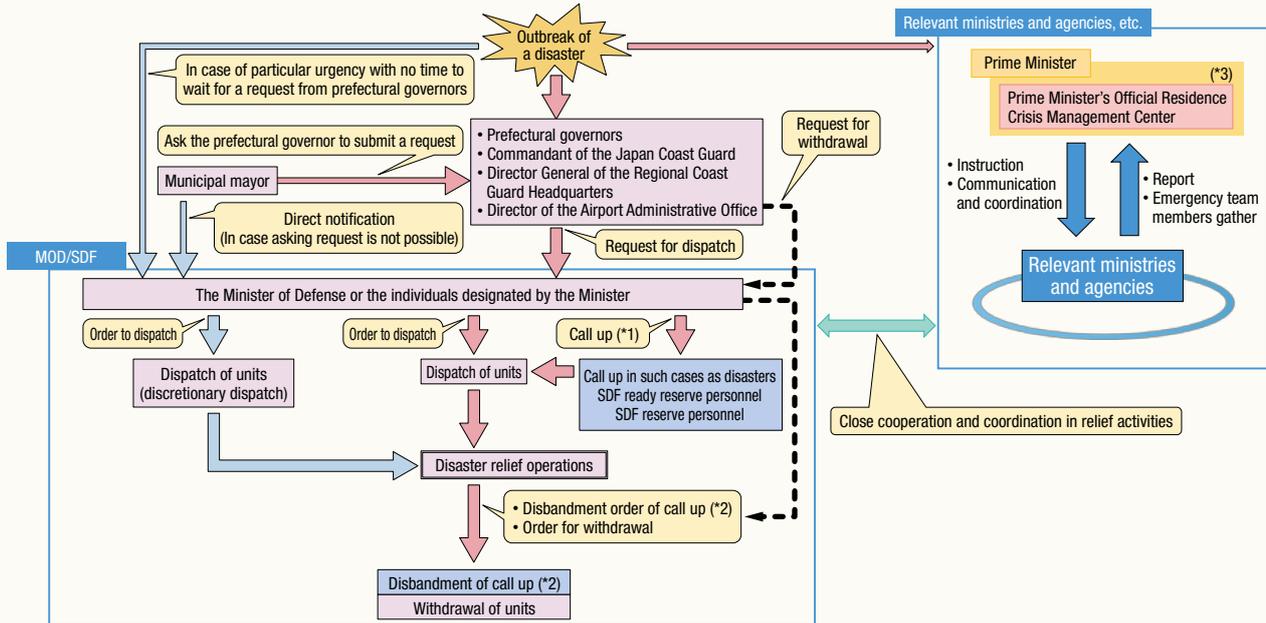
Since the damage situation is unclear at the beginning of a disaster, the SDF will maintain response readiness to any damage and need for activities while giving the first priority to life-saving activities. For livelihood support, the SDF will coordinate the role sharing, response policy, activity period, utilization of private companies, and other matters with relevant parties including the

1 Basic Concept

Among the roles that must be served by Japan’s defense capability as set forth in the NDPG, the idea of “(4) response to large-scale disasters, etc.” is as follows.

In the event of a large-scale disaster or similar, all possible measures will be taken in the initial stages to

Fig. III-1-4-1 Flow from Request to Dispatch and Withdrawal and Response by the Government



Notes: 1. SDF ready reserve personnel and SDF reserve personnel will be called on by the Minister of Defense as necessary with the approval of the Prime Minister.
 2. Disbandment of call-up of SDF ready reserve personnel and SDF reserve personnel must be done by the Minister of Defense.
 3. In the event of emergencies, such as a natural disaster, nuclear disaster, or accident, an emergency team consisting of director-general level personnel of respective ministries and agencies is called on. Furthermore, in the event of a disaster of extreme severity, a ministerial meeting is held based on the Prime Minister’s decision, and the government may establish an emergency headquarters or hold the National Security Council, depending on the circumstances.



REFERENCE: MOD / SDF (disaster management) Official Twitter
 URL: https://twitter.com/modjapan_saigai



SDF personnel engaging in life-saving activities



SDF personnel searching for missing persons

local governments and ministries concerned at the local response headquarters and other locations. In August 2020, a collaborative response manual for the removal, etc., of disaster waste was jointly formulated with the Ministry of the Environment.

In addition, based on the “Examination Report on the Initial Response to the Heavy Rain in July 2018” (November 2018), in order to rescue and support more victims in the event of a large-scale disaster and considering possible confusion of the local governments, the MOD/SDF will not only wait for requests from the local governments but also actively propose specific support activities by the SDF. In actual activities, the SDF will provide flexible support by accurately understanding needs, which change depending on the situation. For this purpose, the SDF is strengthening dissemination of information so that people who truly need support by the SDF can easily access the information related to support.

Furthermore, the SDF has an initial response posture in place to ensure that disaster relief operations are conducted promptly.

For example, when an earthquake of seismic intensity of upper five or higher occurs, information is collected by aircraft.

 See Fig. III-1-4-1 (Flow from Request to Dispatch and Withdrawal and Response by the Government)

2 Response by the MOD/SDF

(1) Response to Natural Disasters, etc.

a. Disaster Relief to Atami City, Shizuoka Prefecture, in Response to Heavy Rain from July 1, 2021

On the morning of July 3, 2021, a debris flow was triggered in a residential area of Atami City, Shizuoka

Prefecture, by heavy rains that had continued to fall since July 1. The commanding officer of the GSDF 34th Infantry Regiment (Itazuma) received a request for dispatch of disaster relief from the governor of Shizuoka Prefecture on July 3. The regiment conducted life-saving activities, collected information about the damage, and dispatched liaison officers to the area. These activities continued for about a month until the governor's request for withdrawal of disaster relief was received on July 31. During this time, a cumulative total of about 27,000 personnel (including 11,000 personnel at the disaster site) were mobilized.

Specific activities included life-saving activities, such as search and rescue operations in the vicinity of the site by the GSDF 34th Infantry Regiment (Itazuma), 32nd Infantry Regiment (Omiya), 1st Tank Battalion (Komakado), ASDF Central Aircraft Control and Warning Wing (Iruma), 3rd Technical School (Ashiya), and other units. In addition, the GSDF 34th Infantry Regiment, 1st Engineer Battalion (Asaka), and other units conducted road clearing by removing sediment and debris accumulated on National Route 135 and other roads near the activity area (approximately 1,020 m of road cleared in total).

As for the collection of damage information, the GSDF Eastern Army Aviation Group (Tachikawa) collected information via UH-1 helicopters and transmitted images of the disaster site. All-weather drones from the GSDF Ground Component Command (Asaka), 1st Division (Nerima), and ASDF Air Defense Command (Yokota) were also used to collect information and transmit images of the disaster site.

Finally, liaison offers were dispatched from these units to the Shizuoka Prefectural Government, Atami City Office, and the local headquarters in Izusan to

coordinate closely with the local authorities and others concerned.

b. Disaster Relief in Response to Heavy Rain from August 2021

In the early morning of August 13, 2021, a landslide occurred in Unzen City, Nagasaki Prefecture. That day, the commanding officer of the GSDF 16th Infantry Regiment (Omura) received a request from the governor of Nagasaki Prefecture for dispatch of disaster relief for life-saving activities. Thereafter, the 16th Infantry Regiment (Omura) and other units carried out life-saving activities until the request for withdrawal was received on August 19. During this time, the ASDF 8th Air Wing (Tsuiki) and 3rd Technical School (Ashiya) conducted search activities using rescue dogs.

On August 14, 2021, the Rokkaku River in Saga Prefecture flooded, and the commanding officer of the GSDF Western Army Combined Brigade (Kurume) received a request from the governor of Saga Prefecture for dispatch of disaster relief for life-saving activities. Following this, the GSDF Western Army Field Artillery Regiment (Kurume, Kusu), MSDF Sasebo Explosive Ordnance Disposal Unit (Sasebo), the ASDF Ashiya Air Rescue Squadron (Ashiya), and so on, conducted life-saving activities using boats, aircraft, other equipment until August 18, when the request for withdrawal was received.

c. Disaster Relief to Prevent the Spread of Community-Acquired Infections of COVID-19

COVID-19 has become a global pandemic and is regarded as a serious security threat to the international community, including Japan. The MOD/SDF have made a variety of all-out efforts to prevent the spread of COVID-19.

Between April 2021 and the end of March 2022, the SDF, in response to requests from prefectural governors, continued to conduct disaster relief operations to prevent the spread of community-acquired infections of COVID-19, which had been ongoing since FY2020. In total, the SDF provided support for infection prevention education to approximately 60 local government employees in seven municipalities,¹ medical support in two municipalities, and transport of approximately 20 patients in 17 municipalities from outbreaks on remote islands.

d. Disaster Relief in Response to Highly Pathogenic Avian Influenza Outbreaks

In response to disaster relief requests from the governors of each prefecture, the SDF provided support such as culling poultry at poultry farms in Akita, Hyogo, and Ehime prefectures where Highly Pathogenic Avian Influenza outbreaks occurred between April 2021 and the end of March 2022.

These missions engaged a cumulative total of around 2,200 personnel.

e. Disaster Relief in Response to Classical Swine Fever (CSF) Outbreak

Between April 2021 and the end of March 2022, the occurrence of CSF were confirmed in Gunma, Mie, Tochigi, and Miyagi prefectures. As prompt epidemic prevention measures, including slaughter of pigs, were required, the SDF assisted with the slaughter and other measures in response to disaster relief requests from the governors of each prefecture. These missions engaged a cumulative total of around 4,400 personnel.

f. Disaster Relief in Response to Forest Fire

From April 2021 and the end of March 2022, local authorities conducted firefighting operations against forest fires that break out in Ibaraki, Gunma, Fukushima, Kumamoto, and Oita prefectures, but they were unable to extinguish the fire despite their efforts. Based on disaster relief requests issued by the governors of the prefectures, the SDF conducted aerial firefighting and other operations. The SDF dispatched a cumulative total of about 860 personnel, about 50 vehicles, and about 30 aircraft.

Furthermore, in FY2021, the SDF carried out 24 dispatches of firefighting support, with 16 cases responding to fire in the areas near SDF facilities.

 See Reference 17 (Record of Disaster Relief (Past Five Years))

(2) Transportation of Emergency Patients

The SDF uses its aircraft to transport emergency patients from isolated islands and remote areas with insufficient medical facilities (transportation of emergency patients). In FY2021, out of a total of 383 cases of disaster relief, 315 cases involved the transportation of emergency patients, with dispatches to remote islands such as the Southwestern Islands (Okinawa and Kagoshima Prefectures), the Ogasawara Islands (Tokyo), and remote islands of Nagasaki Prefecture representing the

¹ General order; includes education support provided via cooperation with other government agencies.

majority of such cases.

In addition, the SDF carries out sea rescues upon requests by the Japan Coast Guard on such occasions as transport of emergency patients from vessels navigating areas of ocean far from the mainland where the aircraft of other organizations are unable to respond, due to reasons including a short flight range and emergencies of vessels due to incidents such as capsizing. Furthermore, the SDF conducts long-distance transportation for serious-case patients, by the ASDF transport aircraft C-130H utilizing its mobile medical units in certain occasions.

(3) The MOD/SDF Response to Nuclear Disasters

In order to respond to nuclear disasters, the MOD/SDF has formulated “The SDF Nuclear Disaster Response Plan.” The SDF also participates in general nuclear disaster prevention drills jointly implemented by the government, local governments, and nuclear operators, to confirm the effectiveness of municipal governments’ evacuation plan and to strengthen cooperation with relevant agencies in a nuclear disaster emergency.

(4) Formulating Plans for Responding to Various Disasters

In the event of the occurrence of various disasters, the MOD/SDF will take all possible measures such as swift transportation and deployment of sufficiently sized units in their initial response. By establishing a rotating staffing posture, the MOD/SDF is able to respond over the long-term. In doing so, the MOD/SDF will fully take into account the lessons learned from the Great East Japan Earthquake and other disasters.

The MOD/SDF formulates various contingency plans for responses to large-scale earthquakes, which are under consideration at the Central Disaster Management Council, based on the Ministry of Defense Disaster Prevention Plan to respond to such earthquakes.

In particular, in FY2021, the Cabinet Office released estimates of fatalities from a megaquake in the Japan Trench or the Chishima Trench. The MOD will deepen its considerations to date based on these estimates.

(5) Collaboration with Local Governments and Other Relevant Organizations

It is important for the MOD/SDF to strengthen collaboration with local governments and other relevant organizations under normal circumstances for the purpose of conducting disaster relief operations smoothly. For this reason, the SDF implements various measures including: (1) Assignment of the post of Liaison Officer for Civil Protection and Disaster Management (administrative official) at the SDF Provincial Cooperation Offices; (2) Temporary assignment of SDF officers to the department in charge of disaster prevention at the Tokyo Metropolitan Government, and mutual exchange between administrative officials of both the GSDF Middle Army and Hyogo Prefectural Government; and (3) Recommendation of retired SDF personnel with knowledge in disaster prevention at the requests of local governments.

As of the end of March 2022, as many as 601 retired SDF personnel are working in disaster prevention and other sections in 426 local governments in 45 prefectures throughout the country. Such cooperation in human resources is a very effective way of strengthening collaboration between the MOD/SDF and local governments, and its efficacy was confirmed through the experiences of the Great East Japan Earthquake and other disasters. In particular, each GSDF regional army establishes a forum for interaction with senior directors for crisis management and other officials from local governments, and shares information and exchanges opinions to strengthen collaboration with those local governments.

In the event of a disaster, liaison officers are sent quickly and effectively from the units to the local municipalities in order to ensure smooth coordination.

(6) Actions Based on the Five-Year Acceleration Measures for Disaster Prevention, Mitigation, and Building National Resilience

In December 2020, the five-year acceleration measures for disaster prevention, mitigation, and building national resilience² were approved by the Cabinet. Under the measures, the MOD intensively focuses on measures for mechanical equipment materials, etc., at SDF

2 In recent years, the Heavy Rain in July 2018, Typhoon Jebi in 2018, the Hokkaido Eastern Iburi Earthquake in 2018 and other natural disasters caused function loss of important infrastructures necessary for living and economic activities of the people, including the occurrence of blackouts and closure of airport terminals, which had a major effect on the activities. Learning from the experience, the Emergency Countermeasures stipulate physical and non-physical measures that individual ministries and agencies should implement intensively for the period of three years from the perspective of maintaining functions including important infrastructure for disaster prevention and important infrastructure supporting the national economy and people's lives.

airfield facilities and others, measures for enhancing the SDF's infrastructure, and measures for strengthening the SDF's buildings, etc., from the perspective of maintaining and strengthening functions including important infrastructure for disaster prevention.

3 Impact on Various Trainings due to Disaster Relief Activities

Large-scale and long-term disaster relief activities have been increasing in recent years, and originally planned training cannot be conducted during these disaster relief

activities, which sometimes hinders the training plans.

In the future, the MOD/SDF will make the utmost effort to respond to life-saving activities during the initial response, and with regards to the various types of emergency assistance, etc., the MOD/SDF will coordinate the role sharing, response guidelines, activity periods, and utilization of private companies, etc., with the relevant parties such as local governments and the relevant ministries and agencies. The posture will be shifted as needed, and activities will be carried out at an appropriate posture and scale.

2 Response to Rescue and Transport of Japanese Nationals Overseas, etc.

1 Initiatives of the MOD/SDF

For prompt and appropriate implementation of rescue or transport of Japanese nationals overseas, the SDF is prepared to dispatch its units swiftly. Specifically, the SDF maintains operational readiness, with the GSDF designating personnel to a helicopter unit and a unit responsible for land transportation, the MSDF designating vessels such as transport ships (including ship-based aircraft), and the ASDF designating airlift units and personnel for dispatch.

By FY2020, the MOD/SDF conducted the transportation of Japanese nationals overseas in four cases. In addition to this, in August 2021, SDF units were dispatched to transport Japanese nationals and others in the Islamic Republic of Afghanistan. The circumstances that led up to our transportation were as follows. The Taliban seized control of Kabul, the capital of Afghanistan, leading to the immediate transport of

Japanese nationals and others out of Afghanistan. In response to the situation, the Minister of Defense received a request from the acting Minister of Foreign Affairs to transport Japanese nationals and others in Afghanistan On August 23. Upon receiving this request, the Minister of Defense issued an order on the same day to conduct transportation activities for Japanese nationals and others from Afghanistan. The “Joint Task Force for the Transport of Japanese Nationals, etc., from the Islamic Republic of Afghanistan” was formed under the leadership of the ASDF Air Support Command commander, and C-2 transport aircraft, two C-130H transport aircraft, and B-777 special transport aircraft were dispatched to the site. As a result, one Japanese national and 14 Afghans requested by the U.S. were transported from Afghanistan to a neighboring country. This operation was terminated on August 31 after the Minister of Defense issued an order to end the operation upon receipt of a request from the Minister of Foreign Affairs to end the transport of Japanese nationals and others that day.

During the operation, a local coordination center was established in the Islamic Republic of Afghanistan to collect information and coordinate with concerned organizations in the field, which contributed to coordination with those on site. In addition, the “Joint Task Force for the Transport of Japanese Nationals, etc., from the Islamic Republic of Afghanistan” consisting of airlift unit, transport assistant unit, and other units, was organized under the leadership of the commander of the GSDF Central Readiness Regiment, and this task force transported Japanese nationals and others. This was the first time that a transport assistant unit was dispatched



Activities of the transport assistant unit at Kabul International Airport

to guide Japanese nationals and others boarding aircraft while conducting the transport of Japanese nationals overseas and others.

 **See** Reference 18 (Record of Transport of Japanese Nationals Overseas)

VOICE **Voices of an SDF personnel who engaged in transporting Japanese nationals, etc. in Afghanistan**

Air Staff Office, ASDF (Shinjuku Ward, Tokyo) Lieutenant Colonel ITO Tomoki

In late August 2021, I was assigned to transport overseas Japanese nationals and others at Kabul International Airport in the capital of the then Islamic Republic of Afghanistan. I have experience serving in the C-2 transport aircraft squadron, so when I saw Afghan people flooding U.S. armed forces transport aircraft on the news prior to my dispatch, as a fellow transport aircraft pilot, my thoughts went straight to, "the U.S. pilots are forced to make a very tough decision. What would I have done?" Then, a few days later, I myself was ordered to be dispatched to Afghanistan. Because the situation inside Kabul International Airport had become somewhat stabilized by that time, I did not feel afraid. Rather, I remember my heart pounding with the thought that I was assigned one part of a serious mission.

I carried out coordination efforts necessary for operating the transport aircraft on the ground together with the U.S. military. Transport aircraft from many different countries, including those of the Self-Defense Forces (SDF), were repeatedly taking off and landing, which made me acutely aware of just how difficult it was to transport hundreds of thousands of people by air. In addition, I put my all into my work on the ground, having been struck deeply by the people I saw at the airport. Afghan people leaving their country with very few belongings had expressions

of fear mixed with relief, while the children appeared to board the aircraft hand-in-hand with their parents with a childlike and innocent delight.

When an SDF aircraft featuring the Japanese national flag landed at Kabul International Airport after flying from Japan to Afghanistan over a distance of approximately 10,000 kilometers, I felt proud to be Japanese. Then, after the aircraft took off with Japanese nationals and others on board, I felt greatly reassured by its presence.

The best case scenario is one in which things like this do not occur. However, I will continue to develop my mental, technical, and physical capabilities so that I can successfully accomplish even more difficult tasks in times of emergency.



Crew members seeing off an ASDF transport aircraft as it takes off

Section 5

SDF Activities since Enforcement of Legislation for Peace and Security

1 Promotion of Various Preparations for New Missions Based on the Legislation for Peace and Security

The Legislation for Peace and Security¹ was enforced in March 2016, and the MOD/SDF has undertaken various preparations for a variety of new missions based on the Legislation for Peace and Security, such as activities to raise awareness of legal systems and intra-unit rules that were established, education of SDF personnel, as well as development of educational materials necessary for the actual training of various units and the nurturing

of instructors. In August 2016, as these preparations were all but completed, each unit of the SDF sets out to implement necessary training in connection with the Legislation for Peace and Security. In Japan-U.S. and other bilateral and multilateral training, Japan will conduct necessary training related to the Legislation for Peace and Security after coordinating with the countries concerned.

2 Track Record of Protection of Weapons and Other Equipment of the Units of the U.S. Forces and the Armed Forces of Other Countries (SDF Law Article 95-2)

In 2021, under SDF Law Article 95-2 (protection of weapons and other equipment of the units of the U.S. Forces and the armed forces of other countries), SDF vessels protected U.S. military vessels four times during ISR activities including ballistic missile alerts. During bilateral/multilateral exercises, SDF vessels protected U.S. military vessels 10 times, and SDF aircraft protected U.S. military aircraft seven times, resulting in 21 times of asset protection in total. This track record of protecting the U.S. Forces demonstrates the deepening of the Japan-U.S. Alliance, as well as

increasing interoperability between the units of the SDF and the U.S. forces.

Also, in 2021, the SDF provided protection for the Australian Defence Force under this Article for the first time. The SDF vessel protected the Australian Defence Force vessel on the occasion of the Japan-Australia bilateral exercise, which enhanced interoperability and enabled much closer collaboration between the units.

 See Reference 19 (Track Record of Protection of Weapons and Other Equipment of the Units of the U.S. Forces and the Armed Forces of Other Countries (SDF Law Article 95-2))

3 Other Efforts and Activities, etc.

In addition, based on the enforcement of the Legislation for Peace and Security, since April 2019 the MOD/SDF have dispatched staff officers to the Multinational Force and Observers (MFO) as Internationally Coordinated Operations for Peace and Security. In addition, for the engineering units deployed to the UN Mission in the Republic of South Sudan (UNMISS) from January 2012 to May 2017, it was decided to assign the duty of so-called “kaketsukekeigo” to the personnel in the 11th Engineering Unit to be deployed to UNMISS, as well as the duty of joint protection of camps. On



A MSDF destroyer escorting an Australian Defence Force vessel (foreground)

¹ The Legislation for Peace and Security, which consists of the Act for the Development of Legislation for Peace and Security (Act Concerning Partial Amendments to the Self-Defense Forces Law and Other Existing Laws for Ensuring the Peace and Security of Japan and the International Community; Law No. 76 of 2015) and the International Peace Support Act (Act Concerning Cooperation and Support Activities to Armed Forces of Foreign Countries, etc., in Situations where the International Community is Collectively Addressing for International Peace and Security; Law No. 77 of 2015), came into force on March 29, 2016.

VOICE Learning the process of building peace through road stretching and other activities

Ground Component Command, GSDF (Nerima Ward, Tokyo)

Major ARIZONO Mitsuyo

I am in charge of a plan to install a road stretching approximately 2,600 kilometers across the entirety of South Sudan as a member of facility staff at the Mission Support Division of the United Nations Mission in South Sudan (UNMISS). This is very dynamic work that involves consolidating the efforts of the many people involved, such as the Government of South Sudan, non-governmental organizations (NGOs), and army corps of engineers

dispatched from several countries. This mission requires me to demonstrate leadership as a representative of the Japanese national flag in a multinational environment with both military and civilian personnel. It is the perfect “training hall” to help me dramatically develop my capabilities, and provides an important opportunity to learn and think about a wide range of issues facing the international community by allowing me to deal with those issues directly, such as climate change and the Sustainable Development Goals (SDGs).



Exchanging a gift with the Commander of the Royal Thai Army Corps of Engineers



Coordination with United Nations organizations

November 15, 2016, the Cabinet approved the revision of the Implementation Plans for the International Peace Cooperation Assignment for UNMISS.

With regards to the Acquisition and Cross-Servicing Agreement (Japan-U.S. ACSA), following the passage of the Legislation for Peace and Security, the new Japan-U.S. ACSA was signed in September 2016, ratified by the Diet in April 2017, and entered into force in April 2017. This has enabled the same framework as the existing

Japan-U.S. ACSA, such as settlement procedures, to be applied to the provision from the SDF to the U.S. Forces of supplies and services that had become possible from the passage of the Legislation for Peace and Security.

In addition to the United States, the ACSA based on the Legislation for Peace and Security also came into effect for Australia, the United Kingdom, France, Canada, and India.

 See Chapter 3, Section 5-2 (Initiatives to Support UN PKO, etc.)

The National Defense Program Guideline (NDPG) provides that the Japan-U.S. Security Arrangements based on the Japan-U.S. Security Treaty, together with Japan's own national defense architecture, constitute a cornerstone for Japan's national security. The Japan-U.S. Alliance, with the Japan-U.S. Security Arrangements as its core, plays a significant role for peace, stability and prosperity of not only Japan but also the Indo-Pacific region and the international community.

As inter-state competitions prominently emerge, it has become all the more important for Japan's national security to further strengthen its relationship with the United States, with whom Japan shares universal values and strategic interests. The U.S. also recognizes that cooperation with its allies is becoming more important.

On that basis, the NDPG provides that, while the Japan-U.S. Alliance has been reinforced through activities including those that were made possible by

the Legislation for Peace and Security, Japan needs to further enhance the Alliance through efforts under the "Guidelines for Japan-U.S. Defense Cooperation" in order to achieve its national defense objective as the security environment surrounding Japan becomes more severe and uncertain at remarkably fast speeds.

At the same time, the NDPG provides that, in further strengthening the Japan-U.S. Alliance, it is an essential premise that Japan strengthens its own defense capability on its own accord and initiative. Fulfilling this premise, Japan needs to press ahead with efforts such as: strengthening the Alliance capabilities to deter and respond; enhancing and expanding cooperation in a wide range of areas; and steadily implementing measures concerning the stationing of the U.S. Forces in Japan (USFJ).

This chapter explains activities related to the enhancement of the Japan-U.S. Alliance while taking account of the concept of the NDPG.

Section 1

Outline of the Japan-U.S. Security Arrangements

1 Significance of the Japan-U.S. Security Arrangements

1 Maintenance of Japan's Peace and Security

In the current international community, a robust defense system capable of responding to every contingency, ranging from all types of armed attacks, including the use of nuclear weapons, to coercion or intimidation by military power, is necessary to secure the peace, security, and independence of the nation.

However, it is difficult even for the United States to guarantee its security on its own. Much more than that, it would be difficult for Japan to ensure its national security solely through its unilateral efforts given its population, land, and economy.

Consequently, Japan has maintained its peace, security, and independence centered on the Security Arrangements with the world's dominant military power, the United States, with which it shares basic values such as democracy, respect for human rights, the

rule of law, and a capitalist economy as well as interests in maintaining the peace and security of the world and has strong economic ties.

Specifically, Japan and the United States will take bilateral action in the event of an armed attack against Japan, based on the provisions of Article 5 of the Japan-U.S. Security Treaty, and Japan will provide facilities and areas for the U.S. Forces, based on the provisions of Article 6 of the treaty. If a nation plans to attack Japan, the attacker must be prepared to confront not only the defense capability of the Self-Defense Forces (SDF), but also the overwhelming military strength of the United States, due to the U.S. obligation to defend Japan in the event of an armed attack. As a result, the opposing nation clearly recognizes that it will suffer grievously if it carries out an invasion, and such desires will be abandoned at the planning stage. In other words, this serves as deterrence against attacks.



Japan-U.S. Summit Meeting (May 2022) [Website of the Prime Minister's Office of Japan]

Japan intends to create a seamless posture and secure its peace and security by effectively utilizing the deterrence capabilities of the U.S. military together with Japan's own national defense architecture.

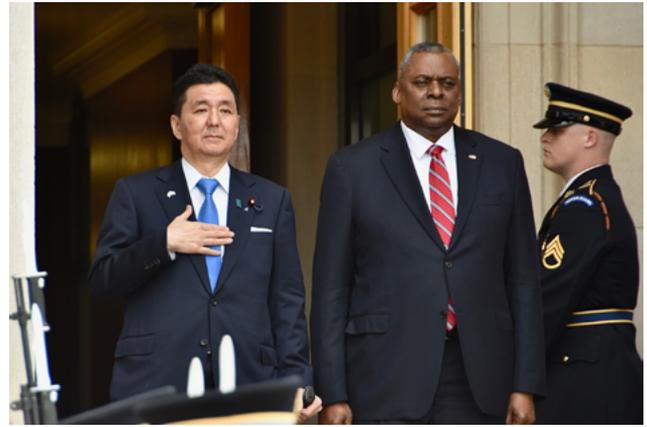
2 Maintenance of Peace and Stability in the Region surrounding Japan

Article 6 of the Japan-U.S. Security Treaty states that contributing to the security of Japan and the maintenance of international peace and security in the Far East is the purpose of the use of facilities and areas by the USFJ. This provision is based on the recognition that the security of Japan is closely tied to the peace and security of the Far East region to which Japan belongs.

In the regions surrounding Japan, there are many states and the like with massive military power, including some states that retain nuclear weapons or continue nuclear development. In addition, uncertainty over the existing order is increasing due to changes in the balance of power. The so-called gray-zone situations harbor the risk of rapidly developing into graver situations without showing clear indications.

In such a security environment, the military presence of USFJ provides deterrence against unexpected contingencies caused by various security issues or destabilizing factors, not only protecting the interests of Japan and the United States but also providing a great sense of security to the nations in the region and thus fulfilling a role as public goods.

Also, the close bonds of cooperation based on



Japan-U.S. Defense Ministerial Meeting (May 2022)

the Japan-U.S. Security Arrangements constitute the foundation of the United States' commitment to the peace and stability of the region surrounding Japan. These arrangements, complemented by the alliances established between the United States and other countries in the region such as the Republic of Korea (ROK), Australia, Thailand, and the Philippines, and also by the friendly relations developed with other countries, play an indispensable role in maintaining the peace and stability of the region.

3 Responding to Global Issues

The Japan-U.S. Security Arrangements are the foundation for a comprehensive and friendly cooperative relationship between Japan and the United States, not only in defense but also in a wide range of areas, including politics, economy, and society.

The Japan-U.S. Alliance, with the Japan-U.S. Security Arrangements at its core, also forms the axis of Japan's foreign policy. It contributes to Japan's ability to implement positive efforts to maintain the peace and security of the international community, including the promotion of multinational security dialogue and cooperation, and cooperation with the United Nations.

Currently, we are confronted with global security challenges that are difficult for any single country to tackle alone, including risks concerning stable use of the seas, outer space and cyberspace, the acts of piracy, proliferation of weapons of mass destruction and ballistic missiles, and international terrorism, and



MOVIE: U.S. INDOPACOM commander's visit to Japan

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it is important for countries to work together from peacetime. The strong bonds forged between Japan and the United States are also playing an important role in the efforts implemented by Japan to effectively respond to such challenges.

In particular, under the Japan-U.S. Security Arrangements, the SDF and the U.S. Forces are working together in peacetime in a variety of areas to strengthen their cooperation. This close coordination lays the foundation for various forms of global collaboration

such as counter-piracy, undertaken by the SDF and the U.S. Forces, and leads to enhancement of the operational effectiveness of the Japan-U.S. Security Arrangements.

The peace and prosperity of the international community are closely linked to those of Japan. Accordingly, by advancing initiatives for resolving global issues in cooperation with the United States, which has remarkable operational capabilities, Japan will be able to further ensure its security and prosperity.

2 Content of the Guidelines for Japan-U.S. Defense Cooperation

The “Guidelines for Japan-U.S. Defense Cooperation” (the Guidelines), which show the general outline and policy direction of roles and cooperation between Japan and the United States, were formulated in 1978, and successively revised in 1997 and 2015.

The current Guidelines, which were revised in 2015,

update the general framework and policy direction for the roles and missions of the two countries, as well as modernizing the Alliance. The Guidelines also manifest a strategic vision for a more robust Alliance and greater shared responsibilities by enhancing its deterrence and response capabilities in all phases, from peacetime to

Fig. III-2-1-1

Chronology of the Japan-U.S. Alliance

1951		The former Japan-U.S. Security Treaty is signed
1952	Years of the former Japan-U.S. Security Treaty	The treaty enters into force
1958		Fujiyama-Dulles Talks (agreement on the revision of the treaty)
1960	Revision of Japan-U.S. Security Treaty and the new Japan-U.S. Security Treaty	The new Japan-U.S. Security Treaty is signed and enters into force
1968		(Ogasawara Islands are returned to Japan)
1969		Sato-Nixon Talks (agreement on the renewal of the Japan-U.S. Security Treaty and the return of Okinawa to Japan)
1972		(Okinawa is returned to Japan)
1976	Formulation of the 1978 Guidelines and expanding Japan-U.S. defense cooperation	(Agreement on the establishment of the Sub-Committee-Committee for U.S.-Japan Defense Cooperation)
1978		Formulation of the 1978 Guidelines for Japan-U.S. Defense Cooperation (1978 Guidelines)
1991		(Collapse of the USSR and the end of the Cold War)
1996	End of the Cold War and the establishment of the 1997 Guidelines	Japan-U.S. Joint Declaration on Security (Hashimoto-Clinton talks)
		SACO Final Report
1997		Formulation of the 1997 Guidelines for Japan-U.S. Defense Cooperation (1997 Guidelines)
2001		9/11 terrorist attacks in the U.S.
2003		The Japan-U.S. Alliance in the global context (Koizumi-Bush Talks)
2006	Japan-U.S. relations since the 9/11 terrorist attacks in the United States	Formulation of the United States-Japan Roadmap for Realignment Implementation
		The Japan-U.S. Alliance of the New Century (Koizumi-Bush Talks)
		The Japan-U.S. Alliance for the World and Asia (Abe-Bush Talks)
2007		Irreplaceable Japan-U.S. Alliance (Abe-Bush Talks)
2010		50th anniversary of the conclusion of the Japan-U.S. Security Treaty
2012		Japan-U.S. Joint Statement: A Shared Vision For the Future (Noda-Obama Talks)
2013		Agreement on the revision of the Guidelines for Japan-U.S. Defense Cooperation
2014		The United States and Japan: Shaping the Future of the Asia-Pacific and Beyond (Abe-Obama Talks)
2015	New security environment and the establishment of the new Guidelines	Formulation of the New Guidelines for Japan-U.S. Defense Cooperation
		Japan-U.S. Joint Vision Statement (Abe-Obama Talks)
2017		Joint Statement (Abe-Trump Talks)
2018		Joint Statement (Abe-Trump Talks)
2020		60th anniversary of the conclusion of the Japan-U.S. Security Treaty
2021		Joint Statement (Suga-Biden Talks)
2022		Joint Statement (Kishida-Biden Talks)

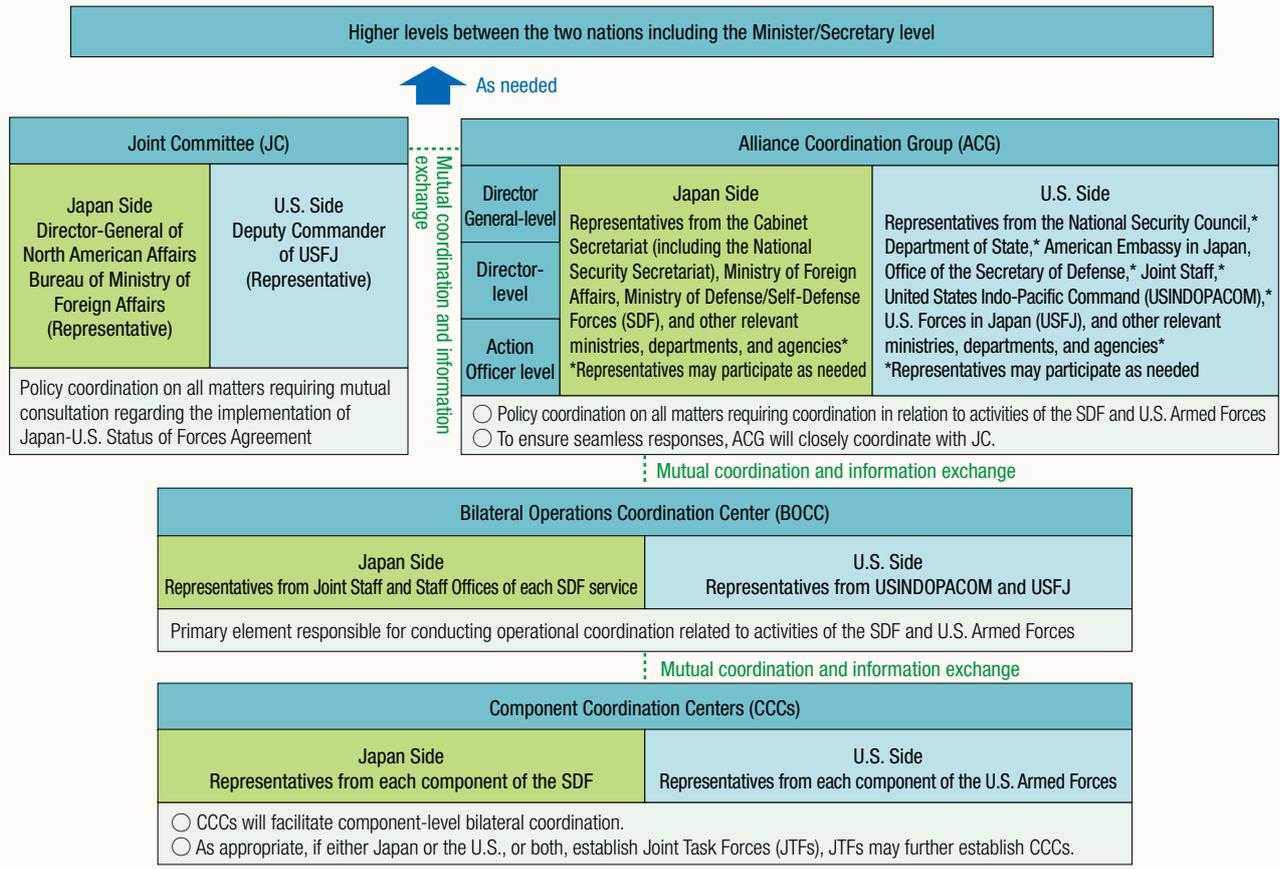
Fig. III-2-1-2

Outline of the Guidelines for Japan-U.S. Defense Cooperation

Item	Outline																		
<p>I. Defense Cooperation and the Aim of the Guidelines</p>	<p>The Guidelines provide the general framework and policy direction for the roles and missions of Japan and the United States, as well as ways of cooperation and coordination. In this way, the Guidelines promote domestic and international understanding of the significance of the Japan-U.S. Alliance. ○ By means of the Japan-U.S. bilateral security and defense cooperation, the following points will be emphasized: – seamless, robust, flexible, and effective bilateral responses; – synergy across the two governments' national security policies; – a whole-of-government Alliance approach; – cooperation with regional and other partners, as well as international organizations; and – the global nature of the Japan-U.S. Alliance.</p>																		
<p>II. Basic Premises and Principles</p>	<p>A The rights and obligations under the Japan-U.S. Security Treaty and its related arrangements, will remain unchanged. B All actions and activities undertaken by Japan and the United States under the Guidelines will be consistent with international law. C All actions and activities undertaken by Japan and the United States will be in accordance with their respective constitutions, laws, and regulations. Japan will conduct actions and activities in accordance with its basic positions, such as the maintenance of its exclusively national defense-oriented policy and its three non-nuclear principles. D The Guidelines do not obligate either government to take legislative, budgetary, administrative, or other measures. However, the two governments are expected to reflect in an appropriate way the results of these efforts, in their specific policies and measures.</p>																		
<p>III. Strengthened Alliance Coordination</p>	<p>Effective bilateral cooperation under the Guidelines will require the two governments to conduct close, consultative dialogue and sound policy and operational coordination from peacetime to contingencies. For this purpose, the two governments will establish a new, standing Alliance Coordination Mechanism, enhance operational coordination, and strengthen bilateral planning. <u>A Alliance Coordination Mechanism</u> In order to address issues seamlessly and effectively any situation that affects Japan's peace and security or any other situation that may require an Alliance response, the two governments will utilize the Alliance Coordination Mechanism, and will strengthen policy and operational coordination related to activities conducted by the SDF and the United States Armed Forces in all phases from peacetime to contingencies. The two governments will establish necessary procedures and infrastructure (including facilities as well as information and communication systems) and conduct regular training and exercises. <u>B Enhanced Operational Coordination</u> The two governments recognize the importance of collocating operational coordination functions. The SDF and the United States Armed Forces will exchange personnel to ensure robust information sharing, to facilitate coordination and to support international activities. <u>C Bilateral Planning</u> In peacetime, the two governments will develop and update bilateral plans through the Bilateral Planning Mechanism. Bilateral plans are to be reflected appropriately in the plans of both governments.</p>																		
<p>IV. Seamlessly Ensuring Japan's Peace and Security</p>	<p>● The two governments will take measures to seamlessly ensure Japan's peace and security in all phases from peacetime to contingencies, including situations when an armed attack against Japan is not involved. In this context, the two governments also will promote further cooperation with partners. ● The two governments will utilize the Alliance Coordination Mechanism as appropriate, for assessment of the situation, sharing of information, as well as flexible deterrent options and actions aimed at de-escalation. The two governments also will coordinate strategic messaging through appropriate channels. <u>A Cooperative Measures during Peacetime</u> • The two governments will promote cooperation across a wide range of areas, to strengthen the deterrence and capabilities of the Japan-U.S. Alliance. • The SDF and the United States Armed Forces will enhance interoperability, readiness, and vigilance. To these ends, the two governments will take measures, including, but not limited to: (1) Intelligence, Surveillance, and Reconnaissance; (2) Air and Missile Defense; (3) Maritime Security; (4) Asset Protection; (5) Training and exercises; (6) Logistic Support; and (7) Use of Facilities. <u>B Responses to Emerging Threats to Japan's Peace and Security</u> • The Alliance will respond to situations that will have an important influence on Japan's peace and security. Such situations cannot be defined geographically. The measures described in this section include those that may be taken, in accordance with the two countries' respective laws and regulations, in circumstances that have not yet amounted to such a situation. • In addition to continuing cooperative measures during peacetime, the two governments will pursue all avenues. Utilizing the Alliance Coordination Mechanism, the two governments will take additional measures, based on their own decisions, including, but not limited to: (1) Noncombatant Evacuation Operations; (2) Maritime Security; (3) Measures to Deal with Refugees; (4) Search and Rescue; (5) Protection of Facilities and Areas; (6) Logistics Support; and (7) Use of Facilities. <u>C Actions in Response to an Armed Attack against Japan</u> Bilateral actions remain a core aspect of Japan-U.S. security and defense cooperation. 1 <u>When an Armed Attack against Japan is Anticipated</u> The two governments will take measures to deter an armed attack and to de-escalate the situation, while making preparations necessary for the defense of Japan. 2 <u>When an Armed Attack against Japan Occurs</u> • <u>Principles for Coordinated Actions</u> The two governments will take appropriate and coordinated actions to promptly repel the attack and deter any further attacks. The SDF will have primary responsibility to conduct defensive operations, and the United States Armed Forces will support and supplement the SDF. • <u>Concept of Operations</u></p> <table border="1"> <thead> <tr> <th></th> <th style="background-color: #FFD700;">Self-Defense Forces (SDF)</th> <th style="background-color: #4169E1; color: white;">United States Armed Forces</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Operations to Defend Airspace</td> <td>Conduct bilateral operations to defend airspace above and surrounding Japan</td> <td></td> </tr> <tr> <td>Have primary responsibility for conducting air defense operations while ensuring air superiority</td> <td>Conduct operations to support and supplement SDF operations</td> </tr> <tr> <td rowspan="2">Operations to Counter Ballistic Missile Attacks</td> <td>Conduct bilateral operations to counter ballistic missile attacks against Japan</td> <td></td> </tr> <tr> <td>Have primary responsibility for conducting ballistic missile defense operations to defend Japan</td> <td>Conduct operations to support and supplement SDF operations</td> </tr> <tr> <td rowspan="2">Operations to Defend Maritime Areas</td> <td>Conduct bilateral operations to defend waters surrounding Japan and to secure the safety of sea lines of communication</td> <td></td> </tr> <tr> <td>Have primary responsibility for the protection of major ports and straits in Japan and of ships and vessels in waters surrounding Japan and for other associated operations</td> <td>Conduct operations to support and supplement SDF operations</td> </tr> </tbody> </table>		Self-Defense Forces (SDF)	United States Armed Forces	Operations to Defend Airspace	Conduct bilateral operations to defend airspace above and surrounding Japan		Have primary responsibility for conducting air defense operations while ensuring air superiority	Conduct operations to support and supplement SDF operations	Operations to Counter Ballistic Missile Attacks	Conduct bilateral operations to counter ballistic missile attacks against Japan		Have primary responsibility for conducting ballistic missile defense operations to defend Japan	Conduct operations to support and supplement SDF operations	Operations to Defend Maritime Areas	Conduct bilateral operations to defend waters surrounding Japan and to secure the safety of sea lines of communication		Have primary responsibility for the protection of major ports and straits in Japan and of ships and vessels in waters surrounding Japan and for other associated operations	Conduct operations to support and supplement SDF operations
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Item	Outline			
IV. Seamlessly Ensuring Japan's Peace and Security		Self-Defense Forces (SDF)	United States Armed Forces	
	Operations to Counter Ground Attacks	Conduct bilateral operations to counter ground attacks against Japan by ground, air, maritime, or amphibious forces Have primary responsibility to prevent and repel ground attacks, including those against islands, and have primary responsibility for conducting air defense operations while ensuring air superiority	Conduct operations to support and supplement SDF operations	
	Cross-domain Operations	ISR	Conduct bilateral operations across domains to repel an armed attack against Japan and to deter further attacks In cooperation with relevant agencies, strengthen their respective ISR postures, enhance the sharing of intelligence, and provide protection for each other's ISR assets	
		Space / cyberspace	Cooperate to address threats in the space and cyberspace domains	
		Special operations	Special operations forces cooperate during operations, as appropriate	
	Strike operations	May provide support, as necessary, for the strike operations of the United States Armed Forces	Involve the use of strike power, to support and supplement SDF	
	<ul style="list-style-type: none"> Operational Support Activities The Guidelines identify the following operational support activities: (1) Communications and Electronics; (2) Search and Rescue; (3) Logistic Support; (4) Use of Facilities; and (5) Chemical, Biological, Radiological, and Nuclear (CBRN) Protection. D Actions in Response to an Armed Attack against a Country other than Japan <ul style="list-style-type: none"> When Japan and the United States decide to take actions involving the use of force in accordance with international law, including full respect for sovereignty, and with their respective Constitutions and laws to respond to an armed attack against the United States or a third country, and Japan has not come under an armed attack, they will cooperate closely to respond to the armed attack and to deter further attacks. The SDF will conduct appropriate operations involving the use of force to respond to situations where an armed attack against a foreign country that is in a close relationship with Japan occurs and as a result, threatens Japan's survival and poses a clear danger to overturn fundamentally its people's right to life, liberty, and the pursuit of happiness, to ensure Japan's survival, and to protect its people. Examples of cooperative operations are: (1) Asset Protection; (2) Search and Rescue; (3) Maritime Operations; (4) Operations to Counter Ballistic Missile Attacks; and (5) Logistics Support. E Cooperation in Response to a Large-scale Disaster in Japan <ul style="list-style-type: none"> When a large-scale disaster takes place in Japan, Japan will have primary responsibility for responding to the disaster. The SDF, in cooperation with relevant agencies, local governments, and private actors, will conduct disaster relief operations. The United States, in accordance with its own criteria, will provide appropriate support for Japan's activities. The two governments will coordinate activities through the Alliance Coordination Mechanism, as appropriate. The two governments will work together closely, including through information sharing. The United States Armed Forces may participate in disaster-related drills, which will increase mutual understanding in responding to large-scale disasters. 			
V. Cooperation for Regional and Global Peace and Security	<ul style="list-style-type: none"> In an increasingly interconnected world, Japan and the United States will take a leading role in cooperation with partners to provide a foundation for peace, security, stability, and economic prosperity in the Asia-Pacific region and beyond. When each of the two governments decides to participate in international activities, the two governments will cooperate closely with each other and with partners, as appropriate, such as in the activities described below. A Cooperation in International Activities <ul style="list-style-type: none"> The two governments will participate in international activities, based on their own judgment. When working together, the SDF and the United States Armed Forces will cooperate to the maximum extent practicable. Common areas for cooperation will include: (1) Peacekeeping Operations; (2) International Humanitarian Assistance/Disaster Relief; (3) Maritime Security; (4) Partner Capacity Building; (5) Noncombatant Evacuation Operations; (6) Intelligence, Surveillance, and Reconnaissance; (7) Training and Exercises; and (8) Logistics support. B Trilateral and Multilateral Cooperation The two governments will promote and improve trilateral and multilateral security and defense cooperation. The two governments also will work together to strengthen regional and international institutions with a view to promote cooperation based upon international law and standards.			
VI. Space and Cyberspace Cooperation	A Cooperation on Space <ul style="list-style-type: none"> The two governments will maintain and strengthen their partnership to secure the responsible, peaceful, and safe use of space. The two governments will ensure the resiliency of their space systems and enhance space situational awareness cooperation. The SDF and the United States Armed Forces will continue to cooperate in such areas as early-warning, ISR, positioning, navigation and timing, space situational awareness, meteorological observation, command, control, and communications. B Cooperation on Cyberspace <ul style="list-style-type: none"> The two governments will share information on threats and vulnerabilities in cyberspace in a timely and appropriate manner. The two governments will cooperate to protect critical infrastructure and the services upon which the SDF and the United States Armed Forces depend to accomplish their missions. The SDF and the United States Armed Forces will maintain posture to monitor their respective networks and systems, conduct educational exchanges, ensure the resiliency of their respective networks and systems, contribute to all Japanese and U.S. government efforts, and conduct bilateral exercises. In the event of cyber incidents against Japan, Japan will have primary responsibility to respond, and the United States will provide appropriate support to Japan. In the event of serious cyber incidents that affect the security of Japan, the two governments will consult closely and take appropriate cooperative actions to respond. 			
VII. Bilateral Enterprise	The two governments will develop and enhance the following areas as a foundation of security and defense cooperation, in order to improve further the effectiveness of bilateral cooperation: A Defense Equipment and Technology Cooperation B Intelligence Cooperation and Information Security C Educational and Research Exchanges			
VIII. Processes for Review	Regular evaluations will be conducted on whether the Guidelines remain adequate in light of the evolving circumstances, and the two governments will update the Guidelines in a timely and appropriate manner if deemed necessary.			

Fig. III-2-1-3 The Framework of Alliance Coordination Mechanism (ACM)



contingencies.

See Reference 21 (The Guidelines for Japan-U.S. Defense Cooperation (April 27, 2015), (September 23, 1997))
 Fig. III-2-1-1 (Chronology of the Japan-U.S. Alliance)
 Fig. III-2-1-2 (Outline of the Guidelines for Japan-U.S. Defense Cooperation)

1 Strengthened Coordination within the Alliance

(1) Establishment of the Alliance Coordination Mechanism (ACM)

In November 2015, the Japanese and U.S. Governments established the ACM in order to seamlessly and effectively address any situation that affects Japan's peace and security or any other situation that may require an Alliance response.

Based on the framework shown in Fig. III-2-1-3, the ACM coordinates policy and operational aspects related to activities conducted by the SDF and the U.S. Forces in all phases from peacetime to contingencies. This mechanism also contributes to timely information sharing as well as to the development and maintenance of common situational awareness.

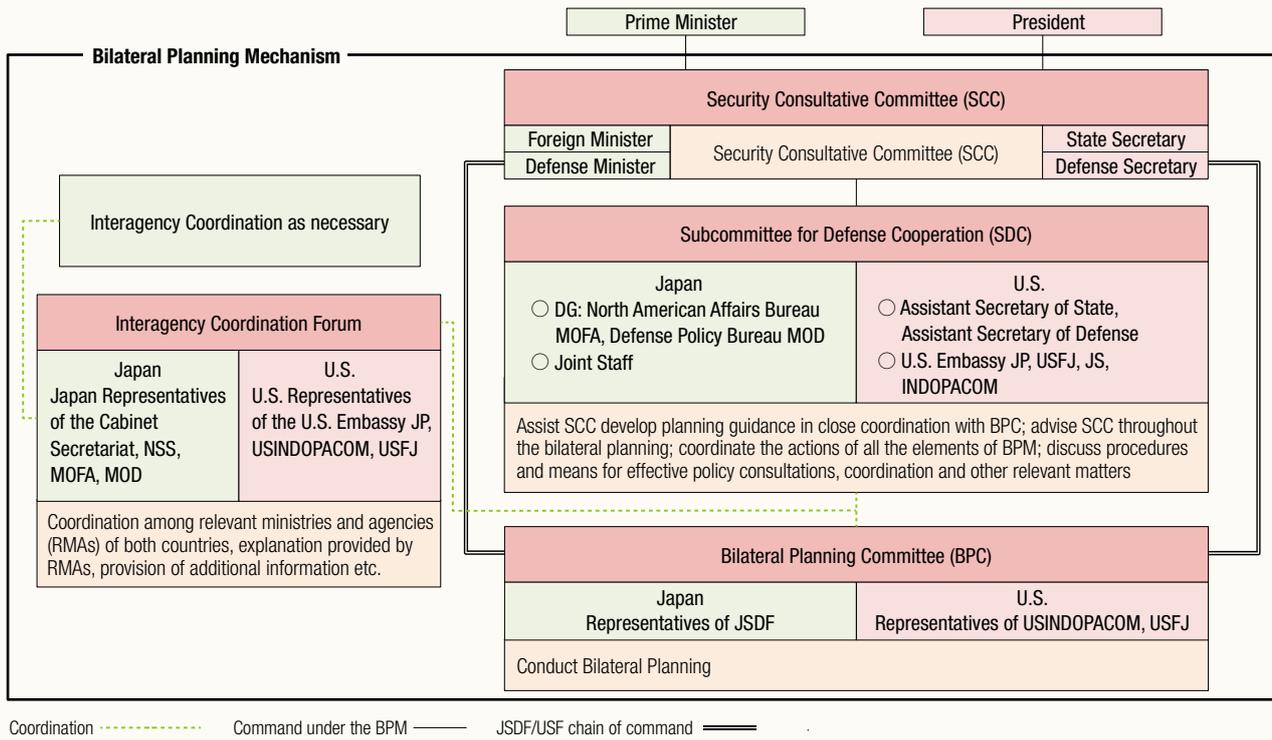
The characteristics of the mechanism include that (1)

it is the standing mechanism utilizable from peacetime; (2) it can be utilized for large-scale natural disasters in Japan as well as for cooperation in the Indo-Pacific region and globally; and (3) it enables whole-of-government coordination while ensuring the involvement of relevant Japanese and U.S. organizations. These characteristics enable the Japanese and U.S. Governments to respond appropriately and promptly when the need for coordination arises. For example, in the event of a largescale natural disaster in Japan, it would require a diversity of coordination in the policy and operational aspects related to activities of the SDF and the U.S. Forces. The utilization of this mechanism makes it possible to conduct close and appropriate coordination with the involvement of relevant Japanese and U.S. organizations at various levels.

Since the establishment of the mechanism, Japan and the United States have been utilizing the mechanism to coordinate closely, including in response to the Kumamoto Earthquake, the ballistic missile launches by North Korea, and Chinese activities in the waters and airspace around the Senkaku Islands.

Fig. III-2-1-4

The Framework of the Bilateral Planning Mechanism (BPM)



See Fig. III-2-1-3 (The Framework of Alliance Coordination Mechanism (ACM))

See Fig. III-2-1-4 (The Framework of the Bilateral Planning Mechanism (BPM))

(2) Enhanced Operational Coordination

Based on the Guidelines, the Japanese and U.S. Governments recognize the importance of collocating operational coordination functions. The SDF and the U.S. Forces will exchange personnel to ensure robust information sharing, to facilitate coordination and to support international activities.

(3) Establishment of the Bilateral Planning Mechanism (BPM)

Based on the Guidelines, the Japanese and U.S. Governments established the BPM in November 2015 for the purpose of implementing the development of bilateral plans in peacetime in line with the Guidelines in order to enable effective bilateral responses to contingencies relevant to Japan's peace and security.

In the development of bilateral plans, this mechanism performs the functions of ensuring Ministerial-level directions and supervision and the involvement of relevant government ministries and agencies, as well as conducting coordination for various forms of Japan-U.S. cooperation conducive to the development of bilateral plans. The two governments will conduct bilateral planning through this mechanism.

2 Strengthening Japan-U.S. Defense Cooperation

The Guidelines define that Japan and the United States will work on a variety of measures from peacetime, including ISR activities, air and missile defense, maritime security, training and exercises, asset protection, and logistics support, and cooperate in such activities as response to a large-scale disaster in Japan to seamlessly ensure Japan's peace and security.

The Guidelines also require both countries: to cooperate in international activities and promote and improve trilateral and multilateral cooperation for regional and global peace and security; to make cooperation on space and cyberspace; and to develop and enhance bilateral enterprise through defense equipment and technology cooperation as well as intelligence cooperation and information security for further improving the effectiveness of bilateral cooperation.

See Section 2 (Strengthening Ability of Japan-U.S. Alliance to Deter and Counter Threats)
Section 3 (Strengthening and Expanding Cooperation in a Wide Range of Areas)

3 Policy Consultations between Japan and the United States

Japan and the United States have maintained close coordination at multiple levels, including the summit level and ministerial level, and have continually strengthened and expanded cooperative relations for the peace, stability and prosperity of not only the two countries but also the entire international community, including the Indo-Pacific region.

Close policy consultations on security are conducted through diplomatic channels as well as between officials in charge of defense and foreign affairs at multiple levels in the Governments of Japan and the United States through meetings such as the Japan-United States SCC (“2+2” Meeting), the SSC and the Subcommittee for Defense Cooperation (SDC). As the framework for ministerial consultations among the top officials in charge of defense and foreign affairs of the two countries, the SCC (“2+2” Meeting) represents such policy consultations. The SCC functions as an important consultative panel to discuss issues related to Japan-U.S. cooperation in the area of security.

In addition, the Ministry of Defense (MOD) organizes Japan-U.S. defense ministerial meetings between the Japanese Minister of Defense and the U.S. Secretary of Defense as necessary where they discuss the defense policies of the respective governments and defense cooperation.

Furthermore, the Japanese State Minister of Defense and the U.S. Deputy Secretary of Defense work together, and MOD officials, including the Vice-Minister of Defense, the Chief of Staff of the Joint Staff, the Vice-Minister of Defense for International Affairs, and the Chiefs of Staff of the SDF, have working-level meetings when necessary and exchange information with the U.S. Department of Defense (DoD) and others under the Japan-U.S. Security Arrangements.

The sharing of information and views at every opportunity and level between Japan and the United States is undoubtedly conducive to the increased credibility of the Japan-U.S. Security Arrangements, and results in the further enhancement of close collaboration between the two countries. Therefore, the MOD is proactively engaging in these initiatives.

See Reference 22 (Japan-U.S. Consultations (Since 2018))
Reference 23 (Joint Statement of the U.S.-Japan Security Consultative Committee (“2+2”) (January 7, 2022))
Reference 24 (U.S.-Japan Security Consultative Committee (2+2) Ministerial Meeting (Outline) (January 7, 2022))
Fig. III-2-1-5 (Major Consultations on Policies Held between Japanese and U.S. Government Officials concerning Japan-U.S. Security Issues)
Fig. III-2-1-6 (Recent Japan-U.S. Bilateral Meetings)

Fig. III-2-1-5

Major Consultations on Policies Held between Japanese and U.S. Government Officials concerning Japan-U.S. Security Issues

Consultative Forum	Participants		Purpose	Legal Basis
	Japanese Side	U.S. Side		
Security Consultative Committee (SCC) (“2+2” Meeting)	Minister for Foreign Affairs, Minister of Defense	U.S. Secretary of State, U.S. Secretary of Defense ¹	Study of matters which would promote understanding between the Japanese and U.S. Governments and contribute to the strengthening of cooperative relations in the areas of security, which form the basis of security and are related to security	Established on the basis of letters exchanged between the Prime Minister of Japan and the U.S. Secretary of State on January 19, 1960, in accordance with Article IV of the Japan-U.S. Security Treaty
Security Subcommittee (SSC)	Participants are not specified ²	Participants are not specified ²	Exchange of views on security issues of mutual concern to Japan and the United States	Article IV of the Japan-U.S. Security Treaty and others
Subcommittee for Defense Cooperation (SDC) ³	Director-General of North American Affairs Bureau, Ministry of Foreign Affairs; Deputy Director General for Defense Policy, Ministry of Defense; Representative from Joint Staff	Assistant Secretary of State, Assistant Secretary of Defense, Representative from: the U.S. Embassy in Japan, USFJ, Joint Staff, USINDOPACOM	Study and consideration of consultative measures to Japan and the United States including guidelines to ensure consistent joint responses covering the activities of the SDF and USFJ in emergencies	Established on July 8, 1976, as a subentry under the Japan-U.S. Security Consultative Committee in its 16th meeting reorganized at the Japan-U.S. vice-ministerial consultation on June 28, 1996
Japan-U.S. Joint Committee	Director-General of North American Affairs Bureau, Ministry of Foreign Affairs; Director General of the Bureau of Local Cooperation, Ministry of Defense; and others	Deputy Commander of USFJ, Minister at the U.S. Embassy, and others	Consultation concerning implementation of the Status of Forces Agreement	Article XXV of the Status of Forces Agreement

Notes: 1. The U.S. side was headed by the U.S. Ambassador to Japan and the Commander-in-Chief of the U.S. Pacific Command before December 26, 1990.

2. Meetings are held from time to time between working-level officials of the two Governments, such as officials corresponding in rank to vice-minister or assistant secretary.

3. A Council of Deputies consisting of Deputy-Director General and Deputy Assistant Secretaries was established when the SDC was recognized on June 28, 1996.

Fig. III-2-1-6

Recent Japan-U.S. Bilateral Meetings

Date	Meeting/Venue	Participants	Summary of the outcome
April 16, 2021	Japan-U.S. Summit Meeting / Washington D.C.	Prime Minister Suga President Biden	<ul style="list-style-type: none"> • The leaders confirmed the Japan-U.S. alliance is unwavering, and the two countries are more prepared than ever before to respond to regional challenges. • The Japan-U.S. Alliance is committed to promoting the shared vision of a Free and Open Indo-Pacific based on the commitment to universal values and shared principles. The two countries respect sovereignty and territorial integrity, as well as peaceful conflict resolution, and oppose intimidation. • Japan is determined to strengthen its defense capabilities in order to further enhance the security of the alliance and the region. • The United States reiterated its unwavering support for Japan's defense under the Japan-U.S. Security Treaty through the use of all kinds of its defense capabilities, including nuclear weapons, and reaffirmed that Article 5 of the Japan-U.S. Security Treaty is applicable to the Senkaku Islands. Both Japan and the United States oppose any unilateral actions that would undermine Japan's administration of the islands. • The importance of strengthening cybersecurity and information protection between the two countries, which serve as the fundamental factor in a closer defense cooperation, and protection of both countries' technological advantages are emphasized. • Both countries agreed to continuously commit to implementing current arrangements for the restructuring of U.S. Forces in Japan, including installing a replacement facility of Futenma Air Station in Henoko, which is the only solution to avoiding the continuous use of MCAS Futenma, establishing a carrier-based aircraft landing training facility on Mageshima Island, and relocating the U.S. Marine Corps from Okinawa to Guam. • The leaders decided to conclude a meaningful multi-year agreement on the Host Nation Support in a timely manner in order to ensure stable and sustainable stationing of the USFJ. • The leaders exchanged opinions on the impact of China's actions on peace and prosperity in the Indo-Pacific region and the world, and shared concerns for China's actions that are discordant with international order based on rules. • Japan reiterated its opposition to the various unilateral attempts to change the status-quo in the East China Sea, and China's illegal claims of maritime interest and activities in the South China Sea, as well as reaffirmed the strong common interest in a free and open South China Sea. • Japan and the United States emphasized the importance of peace and stability in the Strait of Taiwan and prompted a peaceful resolution of cross-strait issues. • The leaders shared deep concerns for the human rights situation in Hong Kong and the Xinjiang Uygur Autonomous Region. Japan and the United States recognized the importance to conduct frank dialogue with China, reiterated their intention to communicate their concerns directly, and recognized the need for cooperation with China in areas of common interest. • Japan and the United States reaffirmed their commitment to the complete denuclearization of North Korea, while calling on North Korea to comply with its obligations under U.N. Security Council resolutions, and called on the international community to fully implement the resolutions. President Biden reaffirmed the U.S. commitment to an immediate resolution to the abductions issue. • Japan and the United States will continue to work with allies and partners, including Australia and India, through an even stronger U.S.-Japan-Australia-India (quad) partnership. Japan and the United States support ASEAN's solidarity and centrality in the Indo-Pacific and the ASEAN Outlook on the Indo-Pacific. • The countries agreed that trilateral cooperation with the Republic of Korea is essential for common security and prosperity. • Japan and the United States resolutely condemned violence against civilians by Myanmar's military and police, and committed to continuing action to push for an immediate end to violence, the release of detained persons, and an early restoration of democracy.
January 7, 2022	Japan-U.S. Security Consultative Committee ("2+2") Meeting / Video Teleconference	Minister of Defense Kishi Minister of Foreign Affairs Hayashi U.S. Secretary of Defense Austin U.S. Secretary of State Blinken	<ul style="list-style-type: none"> • Japan and the United States affirmed their commitment to a free and open Indo-Pacific region and the Japan-U.S. Alliance's critical role as the cornerstone of regional peace, security, and prosperity. They concurred to constantly advance the Alliance's capabilities to address evolving security challenges in an integrated manner. • Japan reiterated its resolve to fundamentally reinforce its defense capabilities to bolster its national defense and contribute to regional peace and stability. The United States welcomed Japan's resolve and expressed its determination to optimize its posture and capabilities in the Indo-Pacific. • The United States restated its unwavering commitment to the defense of Japan under the U.S.-Japan Treaty of Mutual Cooperation and Security, using its full range of capabilities, including nuclear and reaffirmed that Article V of the Treaty applies to the Senkaku Islands. The two sides affirmed the critical importance of ensuring that U.S. extended deterrence remains credible and resilient. • Japan and the United States concurred to stand in firm solidarity in opposing any unilateral action that seeks to change the status quo or to undermine Japan's administration of the Senkaku Islands and on their strong objections to China's unlawful maritime claims, militarization and coercive activities in the South China Sea. Both sides also consented to work together to deter and, if necessary, respond to destabilizing activities in the region. • Japan and the United States expressed serious and ongoing concerns about human rights issues in the Xinjiang Uygur Autonomous Region and Hong Kong. • Japan and the United States emphasized the importance of peace and stability in the Strait of Taiwan and prompted a peaceful resolution of cross-strait issues. • As for North Korea, Japan and the United States reaffirmed their commitment to the complete denuclearization of North Korea, and expressed strong concerns over its advancing nuclear and missile development activities. • With regard to cooperation with like-minded countries, Japan and the United States reaffirmed the commitment confirmed during the Japan-U.S.-Australia-India Summit Meeting (QUAD) in September 2021, to promote the free, open, rules-based order. They also concurred on the importance of strengthening collaboration and cooperation with partners such as Australia, European countries, the Republic of Korea, and ASEAN.
January 7, 2022	Japan-U.S. Security Consultative Committee ("2+2") Meeting / Video Teleconference	Minister of Defense Kishi Minister of Foreign Affairs Hayashi U.S. Secretary of Defense Austin U.S. Secretary of State Blinken	<ul style="list-style-type: none"> • Japan and the United States exchanged their views on issues of common interests including the situation around Ukraine, and reiterated their consistent support for Ukraine's sovereignty and territorial integrity. • Japan and the United States concurred on the importance of vigorously continuing their efforts to ensure their Alliance maintains its competitive edge into the future, such as further enhancing information security, deepening cooperation in space and cyber domains, and advancing technological cooperation to harness emerging technologies and of pursuing investments to strengthen the Alliance's capabilities looking ahead to the future. • Japan and the United States confirmed they would continue their close collaboration to align both countries' strategies and policies.

Date	Meeting/Venue	Participants	Summary of the outcome
January 7, 2022	Japan-U.S. Security Consultative Committee ("2+2") Meeting / Video Teleconference	Minister of Defense Kishi Minister of Foreign Affairs Hayashi U.S. Secretary of Defense Austin U.S. Secretary of State Blinken	<ul style="list-style-type: none"> • Japan and the United States welcomed their robust progress on evolving Alliance roles, missions, and capabilities, and on bilateral planning. • Japan and the United States underscored the importance of strengthened cross-domain capabilities. Japan and the United States confirmed they would deepen security cooperation in both space and cyber domains. • Japan and the United States affirmed that the two sides will advance and accelerate collaboration on emerging technologies based on the framework Exchange of Notes on Cooperative Research, Development, Production, etc. • The Ministers shared the view that they will steadily implement the realignment of U.S. forces in Japan, from the perspective of mitigating the impact on local communities including Okinawa, while maintaining the deterrence of the Japan-U.S. Alliance. • The Ministers reconfirmed that the plan to construct the Futenma Replacement Facility at the Camp Schwab-Henokosaki area and in adjacent waters is the only solution that avoids the continued use of MCAS Futenma, and committed to completing construction as soon as possible. • Japan and the United States confirmed the importance of accelerating bilateral work on the U.S. Forces in Japan realignment efforts, including land returns south of Kadena based on the "Consolidation Plan for Facilities and Areas in Okinawa," and the relocation of approximately 4,000 Marine Corps personnel from Okinawa to Guam beginning in 2024. • The Japanese side requested the U.S. side for safe operations of the U.S. forces in Japan with utmost consideration to the impacts on local communities, appropriate responses to incidents and accidents including sharing information in a timely manner, and cooperation on issues such as PFOS, and both sides confirmed they would continue to closely cooperate. • Japan and the United States welcomed the substantial agreement on a new Host Nation Support arrangement and the signing of the Special Measures Agreement that will enhance Alliance readiness and resiliency.
January 21, 2022	Japan-U.S. Summit Meeting / Video Teleconference	Prime Minister Kishida President Biden of the United States	<ul style="list-style-type: none"> • The two leaders shared the intention to coordinate closely under the strong Japan-U.S. Alliance and to deepen cooperation with like-minded countries such as Australia, India, ASEAN, and Europe, toward realizing a "Free and Open Indo-Pacific." • The two leaders opposed unilateral attempts to change the status quo in the East and South China Seas and any economic coercion, and shared the intention to coordinate closely in addressing various issues related to China. • The two leaders underscored the importance of peace and stability across the Taiwan Strait and encouraged the peaceful resolution of cross-Strait issues. • The two leaders shared serious concerns about the situation in Hong Kong and the human rights situation in the Xinjiang Uygur Autonomous Region. • Based on the common understanding that North Korea's nuclear and missile activities, including the ballistic missile launches, pose a threat to the peace and stability of Japan, the region and the international community, the two leaders shared the intention to continue close coordination between Japan and the United States as well as among Japan, the United States and the Republic of Korea toward the complete denuclearization of North Korea in accordance with the UN Security Council resolutions. • Regarding the situation around Ukraine, the two leaders shared the intention to continue coordination between Japan and the United States, and committed to work closely together to deter Russian aggression against Ukraine. • Endorsing the Joint Statement of the Japan-U.S. Security Consultative Committee ("2+2") held on January 7, 2022, in light of the increasingly severe security environment in the region, the two leaders shared the intention to further strengthen the deterrence and response capabilities of the Japan-U.S. Alliance. • The U.S. side strongly reaffirmed the U.S.'s unwavering commitment to the defense of Japan and extended deterrence, including the application of Article V of the Japan-U.S. Security Treaty to the Senkaku Islands. • The two leaders confirmed their intention to advance cooperation on space and cyber, information security and advanced technology. • The two leaders agreed to continue working closely together to prevent the spread of COVID-19, including by aligning efforts in and around U.S. facilities and areas in Japan. • The two leaders concurred on the launch of the ministerial Japan-U.S. Economic Policy Consultative Committee (the Economic "2+2"), and shared the intention to expand and deepen bilateral economic cooperation and mutual exchanges based on the "Japan-U.S. Competitiveness and Resilience (CoRe) Partnership."
May 4, 2022	Japan-U.S. Defense Ministerial Meeting / Washington D.C.	Minister of Defense Kishi U.S. Secretary of Defense Austin	<ul style="list-style-type: none"> • The Ministers severely condemned Russia's aggression against Ukraine, stating that it is a unilateral change to the status quo by force that poses serious challenge to the international order and such actions are absolutely unacceptable. Both sides confirmed that Japan and the United States would continue to work together to support Ukraine as much as possible. • The US side expressed his appreciation to Japan's leadership in supporting Ukraine. Japanese side stated his vision to strengthen the commitment to security in Europe from the viewpoint that security of the Indo-Pacific region and Europe cannot be regarded separately. • Both sides reaffirmed their commitment to a free and open Indo-Pacific. • Both sides discussed the recent behaviors of China in the Indo-Pacific region such as coercive actions in the East and South China Seas. Both sides determined that any change to the status quo by force in the Indo-Pacific region cannot be condoned, and confirmed that both countries would continue to strengthen cooperation to deter and, if necessary, respond to such actions. • The US side affirmed that the Senkaku Islands are under the administration of Japan and that Article V of the Japan-U.S. Security Treaty applies to the Senkaku Islands. The US side also expressed opposition to any unilateral attempts to undermine the administration of Japan. • Both sides also reiterated the importance of peace and stability of the Taiwan Strait. • Both sides agreed on the view that North Korea's repeated missile launches and nuclear development, etc. are a serious threat against peace and stability of the region and the international community and that such actions cannot be tolerated. Both sides also confirmed to advance close bilateral and trilateral cooperation among Japan, the United States, and the Republic of Korea in response to North Korea's provocations.

Date	Meeting/Venue	Participants	Summary of the outcome
May 4, 2022	Japan-U.S. Defense Ministerial Meeting / Washington D.C.	Minister of Defense Kishi U.S. Secretary of Defense Austin	<ul style="list-style-type: none"> • Both sides concurred to strengthen defense cooperation with partner countries in the region and beyond such as Australia, India, Southeast Asian and Pacific Island nations, and European nations. • Both sides agreed that Japan and the United States would promptly materialize various measures to enhance the Alliance capabilities to deter and respond. • Japanese side expressed its determination to fundamentally reinforce Japan's defense capabilities through formulating the National Security Strategy (NSS), etc. The US side welcomed the statement and both sides confirmed that Japan and the United States would align their respective strategies through close consultations. • The US side stated that the U.S. commitment to providing the extended deterrence including nuclear capabilities to Japan remains unwavering. Japanese side stated that bilateral efforts at various levels to ensure nuclear deterrence remains credible and resilient is more important than ever under the current international security situation, and shared the recognition with the US side. • Both sides concurred on the importance of information security and cyber security which is the basis for Japan-U.S. defense cooperation, and agreed to work together to strengthen them. • Both sides concurred to further deepen cooperation in the area of equipment and technology including cooperation in counter-hypersonic technology. • Both sides welcomed the realignment initiatives of the U.S. Forces in Japan so far including the relocation of Marine Corps Air Station (MCAS) Futenma to Henoko-saki and facility development of Mageshima and agreed that Japan and the United States would continue to closely work together for steady progress. • Both sides shared the importance of continuing to closely work together and further expedite the cooperation to mitigate impact on Okinawa this year, which marks the 50th anniversary of Okinawa's reversion to Japan.
May 23, 2022	Japan-U.S. Summit Meeting in Tokyo	Prime Minister Kishida President Biden	<ul style="list-style-type: none"> • Prime Minister Kishida extended his sincere welcome to President Biden's visit to Japan as it demonstrates the continued commitment of the U.S. to the Indo-Pacific region under any circumstances, and President Biden stated that he hopes to demonstrate the unwavering U.S. commitment to the Indo-Pacific region through this visit to Japan. • As Russia's aggression against Ukraine shakes the very foundations of international order based on the rule of law. The two leaders reaffirmed the need to resolutely defend free and open international order based on the rule of law. The two leaders also recognized that the Indo-Pacific is a region of vital importance to global peace, security and prosperity, and concurred that Japan and the United States will lead the international community towards the realization of a "Free and Open Indo-Pacific." • Regarding Russia's aggression against Ukraine, the two leaders reaffirmed their commitment to promoting support for Ukraine and imposing sanction measures against Russia, in continued close coordination with the G7 and the international community. The two leaders concurred that Japan and the United States will continue to cooperate towards strong international solidarity. • The two leaders concurred on the importance of clearly demonstrating that any unilateral attempts to change the status quo by force, such as the recent aggression, should not be tolerated in any region, and that such attempts should have significant cost. • The two leaders discussed the possible impact of the situation in Ukraine on the Indo-Pacific region and concurred to be attentive to developments such as the recent China-Russia joint military exercises. The two leaders strongly opposed any unilateral attempts to change the status quo by force in the East and South China Seas and economic coercion, expressed serious concern about the development in Hong Kong and the human rights situation in the Xinjiang Uyghur Autonomous Region, and concurred to continue to work closely together in addressing issues related to China. • The two leaders confirmed that their basic positions on Taiwan remain unchanged, reiterated the importance of peace and stability across the Taiwan Strait as an indispensable element in security and prosperity in the international community, and encouraged the peaceful resolution of cross-Strait issues. • The two leaders condemned North Korea's nuclear and missile development activities, including its ICBM-class ballistic missile launches. The two leaders also reaffirmed their commitment to the complete denuclearization of the Korean Peninsula in accordance with United Nations Security Council resolutions, and urged North Korea to abide by its obligations under these resolutions. The two leaders concurred to further strengthen cooperation among Japan, the U.S. and the ROK, including security cooperation. • Prime Minister Kishida expressed his appreciation for President Biden's meeting with the family members of the abductees. He asked for full understanding and cooperation again for the immediate resolution of the abductions issue, and gained further support from President Biden. • The two leaders concurred to swiftly strengthen the deterrence and response capabilities of the Japan-U.S. Alliance. President Biden reiterated the U.S. commitment to the defense of Japan, and the two leaders concurred to communicate more closely between Japan and the U.S. to ensure that extended deterrence remains unwavering. • They reiterated their opposition to any unilateral action that seeks to undermine Japan's longstanding administration of the Senkaku Islands. • Prime Minister Kishida stated his determination to fundamentally reinforce Japan's defense capabilities and secure substantial increase of its defense budget needed to effect it, which received strong support from President Biden.

Section 2

Strengthening Ability of Japan-U.S. Alliance to Deter and Counter Threats

The NDPG provides that, for strengthening the Japan-U.S. Alliance capabilities to deter and respond, in all stages from peacetime to armed contingencies as well as during disasters, Japan will enhance information sharing with the United States, conduct effective and smooth bilateral coordination involving all relevant organizations and take all necessary measures to ensure Japan's peace and security.

For these purposes, Japan will further deepen various operational cooperation and policy coordination with

the United States. In particular, Japan will expand and deepen cooperation in: space and cyber domains; comprehensive air and missile defense; bilateral training and exercises; bilateral ISR operations; and bilateral flexible deterrent options. Japan will also promote the development and update of bilateral plans and deepen the Extended Deterrence Dialogue. In addition, Japan will even more actively conduct activities such as logistic support for U.S. force activities and protection of U.S. ships and aircraft.

1 Cooperation in Space and Cyber Domains

1 Cooperation on Space

With regard to cooperation on space, based on the agreement at the Japan-U.S. summit meeting in November 2009 to promote cooperation in the area of space security as part of initiatives to deepen the Japan-U.S. Alliance, the two countries have periodically been working together to discuss how they should cooperate in the future, such as the holding of the 1st Japan-U.S. Space Security Dialogue in September 2010 with the participation of relevant ministries and agencies.

Furthermore, at the Japan-U.S. summit meeting in April 2012, the leaders decided to deepen the space-based partnership for civil and security purposes and to create a whole-of-government comprehensive dialogue on space, enabling relevant ministries and agencies to hold the 1st whole-of-government Japan-U.S. Comprehensive Dialogue on Space in March 2013. The

two countries have been sharing information on their respective space policies and discussing plans for future cooperation on a regular basis.

Moreover, based on the instructions given by the Japan-U.S. Defense Ministerial Meeting of April 2015, the two countries established the Space Cooperation Working Group (SCWG) to further promote the cooperation among bilateral defense authorities in the area of space. The SCWG has held seven meetings in total since its establishment in October 2015 (the most recent meeting was in March 2021). Going forward, Japan and the United States will leverage this working group to deepen discussions in a wide variety of areas, including (1) promoting space policy dialogue, (2) reinforcing information sharing, (3) working together to develop and secure experts, and (4) continuing participation in tabletop exercises.

In May 2021, James Dickinson, commander of the U.S. Space Command, paid a courtesy call on Minister of Defense Kishi and had a meeting with the Chief of Staff, Joint Staff, during which the parties exchanged views on space threats, the importance of securing the stable use of space, and cooperation between Japanese and U.S. defense authorities, including SSA, and agreed to accelerate cooperation to further strengthen the Japan-U.S. Alliance in the space domain.

 See Chapter 3, Section 3-1 (Cooperation in Use of Space Domain)



ASDF Chief of Staff Izutsu meeting with U.S. Space Command Commander Dickinson (May 2021)

2 Cooperation on Cyberspace

Concerning cooperation on cyberspace, the Cyber Defense Policy Working Group (CDPWG) was established in October 2013 as a framework between the MOD and the DoD to discuss a broad range of professional and concrete issues, including the sharing of information at the policy level, human resources development, and technical cooperation. In addition, the Japanese and U.S. defense authorities continue to participate in the “Japan-U.S. Cyber Dialogue,” which is the overall framework for the two governments regarding cyber cooperation, and they also hold the “Japan-U.S. IT Forum,” a framework between the defense authorities regarding information and communications.

The Guidelines released in April 2015 and the CDPWG Joint Statement published in May 2015 cited the prompt and appropriate establishment of an information sharing structure and the protection of the critical infrastructure upon which the SDF and the U.S. Forces depend to accomplish their missions as examples of cooperation between the Japanese and U.S. governments. In addition, as part of cooperation between the SDF and the U.S. Forces, the securing of the resiliency of their respective networks and systems and the implementation of educational exchanges and joint exercises were also cited. At the “2+2” Meeting in April 2019, Japan and the United States agreed to strengthen cooperation in the field of cyberspace,

affirming that international law applies in cyberspace and that a cyber attack could, in certain circumstances, constitute an armed attack for the purposes of Article 5 of the Japan-U.S. Security Treaty.

In terms of operational cooperation, cyber-attack countermeasure training has been conducted as part of the Japan-U.S. Bilateral Joint Exercise (field training exercises) and in the Japan-U.S. Joint Regional Army command post exercise. The training was also carried out as part of the Japan-U.S. Bilateral Joint Exercise (field training exercise) from October to November 2020. In addition, Japan is also cooperating with the United States in the field of human resources, by such measures as dispatching liaison officers to the U.S. Army’s cyber educational institution and sending personnel to cyber warfare commanders’ courses at the National War College of the United States.

 Chapter 3, Section 3-2 (Cooperation in Use of Cyberspace)

3 Other Cooperation

As another example of cooperation, in the field of AI, the MOD participated in the AI Partnership for Defense (AIPfD) held in September 2020 by the Joint Artificial Intelligence Center (JAIC) established by the U.S. Department of Defense in 2018. Since then, the MOD has continued to participate in the AIPfD, exchanging information on topics such as the use of AI in area of security and multilateral challenges.

2 Comprehensive Air and Missile Defense

Regarding the response to airborne threats coming to Japan, such as ballistic missiles, cruise missiles and aircraft, Japan-U.S. bilateral response capabilities have been enhanced by conducting Japan-U.S. joint air defense/missile defense exercises in addition to sharing operational information and establishing response procedures. In addition, for the repeated ballistic missile launches by North Korea, Japan and the United States have conducted coordinated responses utilizing the ACM.

In the systems and technology field, the cooperative development of a new ballistic missile defense (BMD) interceptor with enhanced capabilities (SM-3 Block IIA) is progressing, with its acquisition beginning with the FY2017 budget, and it has moved to the joint

production/deployment stage. In addition, in November 2020, the United States succeeded in intercepting an Intercontinental Ballistic Missile (ICBM) with SM-3 Block IIA, demonstrating its high reliability and capability as an interceptor missile. Furthermore, at the Japan-U.S. “2+2” Meeting in January 2022, the two countries agreed to conduct a joint analysis focused on future cooperation in counter hypersonic technology.

In the Missile Defense Review (MDR) released in January 2019, the United States clearly indicated the importance of cooperation with allies, including Japan.

 Chapter 1, Section 2-2 (Response to Missile Attacks)

3 Bilateral Training and Exercises

Bilateral training and exercises in peacetime not only contribute greatly to maintaining and enhancing the bilateral response capabilities by improving interoperability including mutual understanding of tactics and communication, but are also beneficial for improving tactical skills for each participant. In particular, the knowledge and techniques that the Japanese side learns from the U.S. Forces, which have vast experience in actual fighting, are invaluable and greatly contribute to improving SDF capabilities.

In addition, conducting bilateral training at effective times, places, and scales demonstrates the unified commitment and capabilities of Japan and the United States, which has a deterrent effect. In light of these perspectives, the MOD/SDF is continuing its initiatives to enrich the contents of bilateral training and exercises.

Bilateral training has been expanded not only within Japan but also to the United States by dispatching SDF units there. Furthermore, the content of this training has evolved to the level of cross-domain operations, including new domains such as space, cyberspace, and electromagnetic spectrum. In addition, continuous efforts are being made to enhance interoperability and Japan-U.S. bilateral response capabilities at the military branch and unit levels, including the Japan-U.S. bilateral regional army command post exercises, special anti-

submarine exercises, and Japan-U.S. bilateral fighter combat training.

Since FY1985, mostly on an annual basis, command post exercises and field training exercises have been conducted alternately as the Japan-U.S. bilateral joint exercise. From January to February 2022, a command post exercise (Keen Edge 22) was conducted in the MOD Ichigaya area and other locations.

These Japan-U.S. bilateral exercises confirmed the readiness of the SDF and U.S. forces and improved interoperability between them, and were conducted to strengthen the deterrence and response capabilities of the Japan-U.S. Alliance. It is believed that strengthening Japan-U.S. collaboration and demonstrating the bilateral ties as an outcome will effectively enhance the Japan-U.S. Alliance capabilities to deter and respond further and demonstrate Japan's determination and high capacity towards stabilizing the region in the increasingly severe security environment surrounding Japan.

In recent years, the USFJ have also participated in disaster drills organized by local governments, thereby deepening cooperation with relevant institutions and local governments.

 **See** Reference 25 (Record of Main Japan-U.S. Bilateral Exercises in FY2021)

4 Intelligence, Surveillance and Reconnaissance (ISR) Activities

With regard to bilateral ISR activities, it is important to implement ISR activities in a broad Asia-Pacific region in cooperation between Japan and the United States to enhance the efficiency and effectiveness of the activities of both countries.

The expansion of these ISR activities will function as deterrence capabilities, and will also ensure

information superiority over other nations and enable the establishment of a seamless cooperation structure in all phases from peacetime to contingencies.



MOVIE: Japan-U.S. Bilateral Joint Exercise (Keen Edge 22)

URL: <https://www.youtube.com/watch?v=ggYcqsVTIHg>



MOVIE: Rising Thunder 21

URL: <https://youtu.be/9tuXkaa5dZ8>



5 Maritime Security

In accordance with the Guidelines and others, the two governments will cooperate closely with each other on measures to maintain maritime order based upon international law, including freedom of navigation. The SDF and the U.S. Forces will cooperate, as appropriate,

on various efforts such as maintaining and enhancing bilateral presence in the maritime domain through ISR and training and exercises, while further developing and enhancing shared maritime domain awareness including by coordinating with relevant agencies, as necessary.

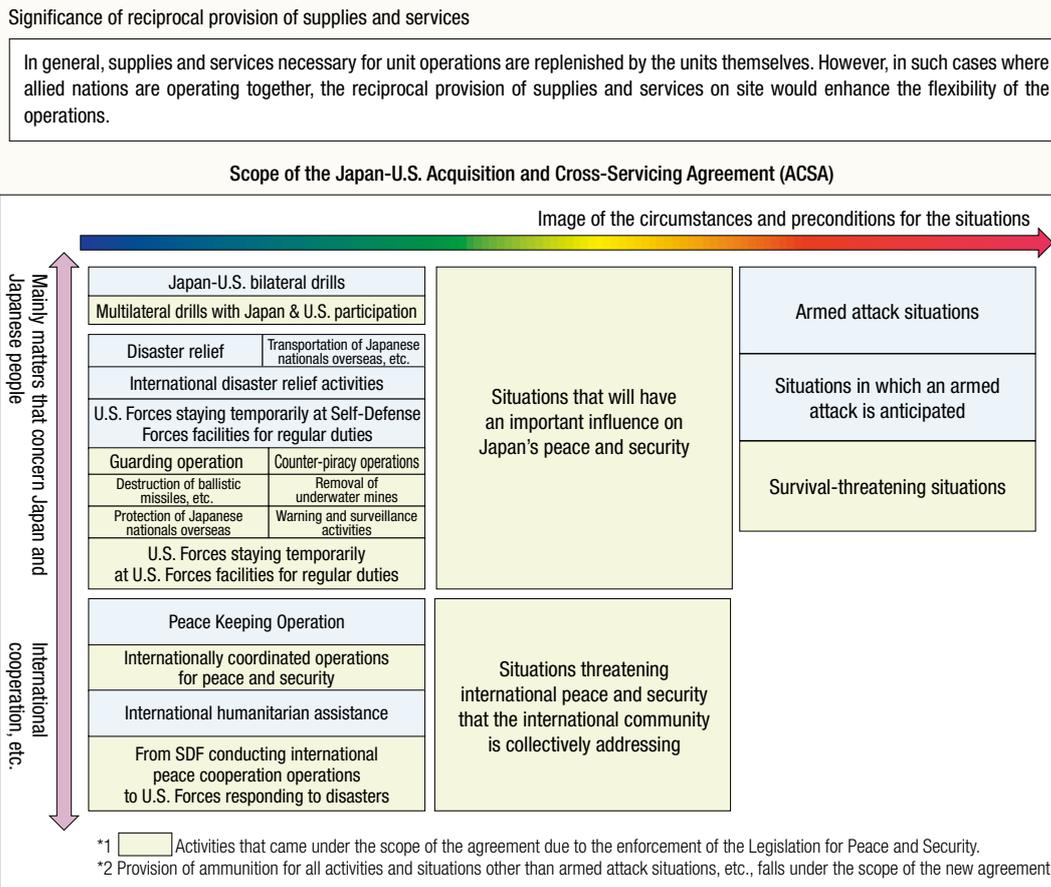
6 Logistics Support

Japan-U.S. cooperation is also being steadily promoted through logistics support based on the Acquisition and Cross-Servicing Agreement (ACSA) signed in 1996 and revised in 1999 and 2004. The Agreement is designed to positively contribute to the smooth and effective operation under the Japan-U.S. Security Treaty and to initiatives for international peace taken under the leadership of the United Nations (UN). Its

scope of application includes various occasions such as bilateral training and exercises in peacetime, disaster relief activities, UN PKO, international disaster relief activities, and armed attack situations. If either the SDF or the U.S. Forces request the other party to provide supplies or services, the Agreement, in principle, allows the requested party to do so.¹

Following the passage of the Legislation for Peace

Fig. III-2-2-1 Japan-U.S. Acquisition and Cross-Servicing Agreement (ACSA)



¹ The categories of supplies and services as provided under the Agreement include: food; water; billeting; transportation (including airlift); petroleum, oils, and lubricants; clothing; communications; medical services; base support; storage services; use of facilities; training services; spare parts and components; repair and maintenance services; airport and seaport services; and ammunition (provision of weapons is not included).

and Security in September 2015, the new Japan-U.S. ACSA was signed in September 2016, ratified by the Diet on April 14, 2017, and entered into force on April 25. This has enabled the same framework as the existing Japan-U.S. ACSA, such as settlement procedures, to be applied to the provision of supplies and services that

had become possible under the Legislation for Peace and Security, so that since April 2017 food and fuel have been provided to the U.S. Forces engaged in information collection and other activities.

 See Chapter 1, Section 5-3 (Other Efforts and Activities, etc.)
Fig. III-2-2-1 (Japan-U.S. Acquisition and Cross-Servicing Agreement (ACSA))

7 Cooperation in Response to a Large-Scale Disaster in Japan

In the aftermath of the Great East Japan Earthquake in 2011, the SDF and the U.S. Forces demonstrated their high-level joint response capabilities based on the strong ties they had developed. The success of the joint response between the SDF and the U.S. Forces through Operation Tomodachi was the result of Japan-U.S. Bilateral Training and Exercises over many years, and will lead to the Alliance being deepened further in the future. Operation Tomodachi involved the deployment of a large-scale force at its peak, including troops of approximately 16,000 personnel, around 15 ships, and around 140 aircraft, resulting in relief activities that were unprecedented in scale and contributing greatly to Japan's restoration and reconstruction. Not only those affected but numerous Japanese at large were filled with a deepened sense of appreciation and trust for the USFJ.

On the other hand, some issues have emerged, such as clarifying the roles, missions and capabilities of Japan and the United States in the event of a disaster within Japan, as well as stipulating more concrete joint guidelines to facilitate greater participation by the U.S.

Forces in disaster prevention drills, and examining mechanisms for the sharing of information and more effective coordination mechanism.

In light of these issues, the December 2013 Response Plan for a Massive Earthquake in the Nankai Trough listed the Japan-U.S. Joint Response Plan, and the two countries have conducted several bilateral comprehensive disaster prevention training aimed at maintaining and enhancing earthquake disaster handling capabilities to be demonstrated through collaboration between the SDF, USFJ, related ministries and agencies, and related local governments in the event of the occurrence of a Nankai Trough earthquake.

In response to the Kumamoto Earthquake in 2016, Japan-U.S. cooperation was manifested in the form of the transportation of daily necessities by the Osprey (MV-22) of the U.S. Marine Corps and the transportation of SDF personnel by C-130 transport aircraft. The ACM was utilized on that occasion, including the Japan-U.S. Joint Coordination Office locally established by the joint task force organized for the earthquake response.

Section 3

Strengthening and Expanding Cooperation in a Wide Range of Areas

1 Creation of a Desirable Security Environment

The NDPG provides that in order to create a desirable security environment including maintaining and enhancing free and open maritime order, and with an eye on increasing Japanese and U.S. presence in the Indo-Pacific region, Japan will conduct bilateral activities.

1 Maintaining and Enhancing Maritime Order

Both Japan and the United States have made efforts as maritime nations to maintain and develop “open and stable seas” according to fundamental rules such as securing the freedom and safety of navigation, and the rule of law including peaceful dispute resolution based on international law.

For example, the SDF has dispatched its officers to the U.S. Central Naval Command in Bahrain to carry out information gathering activities in the Middle East, which began as a Japan-initiated activity in 2020.

The two countries have also been working closely together on providing multilateral capacity building in the maritime domain to countries including those along

the sea lanes.

 See Chapter 3, Section 2 (Ensuring Maritime Security)

2 Humanitarian Assistance/Disaster Relief

The SDF has conducted activities in close cooperation with the United States and other participating countries through activities pursuant to the former Anti-Terrorism Special Measures Act, and international disaster relief activities and international peacekeeping operations in the Philippines and Haiti.

Japan and the United States worked closely together at local multilateral coordination centers to respond to the typhoon disaster that hit the Philippines in November 2013. Furthermore, in response to the outbreak of the Ebola virus disease, Japan started to dispatch liaison officers to the U.S. Africa Command in October 2014, coordinating efforts and collecting information with relevant countries including the United States, for close cooperation.

2 Initiatives for Leveraging Capabilities

The NDPG provides that in order for Japan and the United States to be able to fully leverage their capabilities during bilateral activities, Japan will enhance and expand cooperation with the United States in the fields of equipment, technology, facility, and intelligence as well as information security.

1 Defense Equipment and Technology Cooperation

Japan proactively promotes cooperation in defense equipment and technology with the United States based on the mutual cooperation principle from the Japan-

U.S. Security Treaty and the Mutual Defense Assistance Agreement between Japan and the United States of America, while bearing in mind the maintenance of the domestic technological and industrial bases.

In view of the progress in technology cooperation between Japan and the United States, the improvement of technological level, and other factors, Japan decided to transfer its military technology to the United States not based on the Three Principles on Arms Exports and related guidelines. Instead, in 1983, Japan signed the Exchange of Notes concerning the Transfer of Military Technologies to the United States of America,¹ later superseded by the Exchange of Notes concerning

¹ Official title: Exchange of Notes concerning the Transfer of Military Technologies to the United States of America

the Transfer of Arms and Military Technologies to the United States of America signed in 2006.² Under these frameworks, Japan has decided to provide the United States with 20 items of arms and military technologies, including military technologies related to joint technological research on BMD. In addition, at the Japan-U.S. “2+2” Meeting in January 2022, Japan and the United States concluded the framework Exchange of Notes on Cooperative Research, Development, Production and Sustainment as well as Cooperation in Testing and Evaluation. Based on this Exchange of Notes, Japan will advance cooperation with the United States on emerging technologies. Both countries consult with each other at forums such as the Systems and Technology Forum (S&TF) and conduct cooperative research and development regarding the specific projects agreed upon at these forums.

Additionally, Japan concluded a Reciprocal Defense Procurement Arrangement with the United States³ in June 2016, following which the Ministers signed a Reciprocal Defense Procurement Memorandum of Understanding (RDP MOU)⁴ at the Japan-U.S. Defense Ministerial Meeting in that same month. The MOU promotes measures based on reciprocity (providing information necessary to tender bids for businesses of the other country, protecting submitted corporate information, waiving restrictions on participation by businesses of the other country, etc.), concerning the procurement of equipment by Japanese and U.S. defense authorities. The expiration of the Arrangement and the MOU was extended in May 2021.

Part IV, Chapter 4, Section 5-2 (Deepening Relationships with the United States regarding Defense Equipment and Technology Cooperation) explains the production, sustainment and maintenance of common equipment (F-35 fighter aircraft and Ospreys) between Japan and the United States.

See Reference 26 (Japan-U.S. Joint Research and Development Projects)
Part IV, Chapter 4, Section 5-2 (Deepening Relationships with the United States regarding Defense Equipment and Technology Cooperation)

2 Joint/Shared Use

The expansion of joint/shared use of facilities and areas also means an increase of bases for the SDF's activities such as maneuver areas, ports, and airfields, which in turn enables closer operational coordination, expanded interoperability, and improved flexibility and resilience during bilateral activities. The SDF has only a limited number of facilities in Okinawa, including Naha Air Base of the ASDF, and most of them are located in urban areas, which has limited its operations. The joint/shared use of U.S. Forces facilities and areas in Okinawa will greatly improve the SDF's training environment in Okinawa, and facilitate implementation of bilateral/multilateral training and exercises and expanded interoperability between the SDF and the U.S. Forces. It will also improve readiness and contribute to ensuring the safety of local people in case of a disaster.

Thus, while taking into account the SDF defense posture in the regions, including the Southwestern Islands, and relations with local communities, Japan and the United States are proactively engaged in consultations, and specific initiatives are steadily progressing. For example, the GSDF has been using Camp Hansen since March 2008 for training. Moreover, the relocation of the ASDF Air Defense Command Headquarters to Yokota in April 2012 and the relocation of the then GSDF Central Readiness Force Headquarters to Zama in March 2013 were carried out. In addition, the development of training ranges in Guam and the



F-35B in takeoff and landing testing on the destroyer JS Izumo (October 2021)

2 Official title: Exchange of Notes concerning the Transfer of Arms and Military Technologies to the United States of America

3 Official title: Exchange of Notes between Japan and the United States of America concerning Reciprocal Defense Procurement

4 Official title: Memorandum of Understanding between the Department of Defense of the United States of America and the Ministry of Defense of Japan concerning Reciprocal Defense Procurement

Northern Mariana Islands (Tinian Island, Pagan Island, etc.) for shared use by the SDF and the U.S. Forces is under consideration.

3 Verification of F-35B takeoff and landing to the destroyer JS “Izumo”

The MSDF destroyer JS “Izumo” is undergoing modifications to enable the takeoff and landing of F-35Bs. In October 2021, with the support of the U.S. Marine Corps and others, an F-35B takeoff and landing verification test was conducted, confirming that the fighters are capable of taking off and landing from the destroyer.

Column

Verification of F-35B takeoff and landing on the destroyer JS “Izumo”

Refurbishments are being implemented by the SDF in stages to enable takeoff and landing of F-35B fighters on Izumo-class destroyers, utilizing long-term repair regular inspections. In FY2021, the first refurbishment, a partial refurbishment (including applying heat resistance coating and indicator markings to the flight deck for F-35B takeoff and landing) of Destroyer JS “Izumo” to enable takeoff and landing of F-35Bs, was completed.

Refurbishing Izumo-class destroyers and enabling takeoff and landing of F-35Bs at sea is essential to ensure a full-fledged posture to defend Japan’s sea and airspace, which includes part of the vast Pacific Ocean, while securing the safety of SDF personnel.

In October 2021, a verification was conducted with assistance of two U.S. Marines’ F-35Bs regarding the takeoff and landing of F-35B fighters on the Destroyer JS “Izumo,” which had undergone the first step of its refurbishment. The verification was a first on a Maritime Self-Defense Force vessel, and it was confirmed that takeoff and landing was possible without any difficulties in calm weather conditions during daytime. Furthermore, in addition to gathering various types of data associated with takeoff and landing, necessary education and training regarding F-35Bs on vessels was conducted with the support of the United States, and the MSDF has been able to gain knowledge.

Verification work carried out with the support of the United States demonstrates a deepening of the Japan-U.S. Alliance and close bilateral cooperation. Also, the takeoff and landing of U.S.

Marines’ F-35B fighters on Destroyer JS “Izumo” contributes to improved interoperability between Japan and the United States and leads to strengthening the ability of the Japan-U.S. Alliance to deter and respond.

Izumo-class destroyers are multi-functional destroyers that possess helicopter operational functions, anti-submarine operations, command and control functions, personnel and vehicle transport capabilities, medical functions, and others. The operational functions of F-35B fighters will be added to these functions, however, the vessels are expected to be equipped with F-35Bs when needed for instances such as air defense in the Pacific during contingencies, exercises, and disaster response. The vessels will continue to be operated as multi-functional destroyers to ensure that the vessel’s functions are fully leveraged in various situations.



Group photograph taken on the flight deck of MSDF Destroyer JS “Izumo”



MOVIE: [Long Version] Verification of takeoff and landing on the destroyer JS “Izumo”

URL: <https://www.youtube.com/watch?v=RngVvHNtojo>

Section 4

Steady Implementation of Measures Concerning the U.S. Forces in Japan

Under the Japan-U.S. Security Arrangements, the presence of the USFJ functions as deterrence, while on the other hand, given the impacts of the stationing of the USFJ on the living environment of the local residents, it is necessary to make efforts appropriate for the actual situation of each area in order to mitigate the impacts. In particular, the realignment of the U.S. Forces in Japan is a very important initiative for mitigation of the impact on local communities, including those in Okinawa, while maintaining the

deterrent capability of the U.S. Forces. Therefore, the MOD will advance the realignment and other initiatives and make continued efforts to gain the understanding and cooperation of the local communities hosting U.S. Forces facilities and areas. In addition, at the Japan-U.S. Defense Ministerial Meeting in May 2022, the Ministers shared the importance of further expediting cooperation to mitigate impact on Okinawa this year, which marks the 50th anniversary of Okinawa's reversion to Japan.

1 Stationing of the USFJ

1 Significance of the Stationing of the USFJ

Given the increasingly severe security environment surrounding Japan, it is necessary to maintain the presence of the USFJ and its readiness to make rapid and agile actions in case of emergency in Japan and the surrounding areas even in peacetime, so that the Japan-U.S. Alliance based on Japan-U.S. Security Arrangements functions enough as a deterrent power that contributes to the peace and stability of the defense of Japan and the region.

Therefore, Japan accepts the stationing of the U.S. Forces based on the Japan-U.S. Security Treaty and it is a cornerstone of Japan-U.S. Security Arrangements.

Also, it is essential to realize the stable stationing of the USFJ in order to make a swift joint response to an armed attack on Japan based on Article 5 of the Japan-U.S. Security Treaty. In addition, the actions of U.S. Forces for the defense of Japan are conducted not only by the USFJ but also by timely reinforcements. The USFJ is supposed to be the basis for them.

While Article 5 of the Japan-U.S. Security Treaty stipulates the duty of the U.S. to defend Japan, the U.S. is granted the use of facilities and areas in Japan based on Article 6 for the purpose of maintaining the security of Japan and international peace and security in the Far East. Therefore, though the duties of each side are not the same, they are balanced overall.

2 Measures concerning the Stationing of the USFJ

The Japan-U.S. Status of Forces Agreement (SOFA)¹ stipulates matters pertaining to USFJ facilities and areas and the status of the USFJ, including the furnishing of facilities and areas for use by the USFJ (USFJ facilities and areas), and satisfying the labor requirements of the USFJ. In addition, the Supplementary Agreement on the Environment enhances cooperation for environmental stewardship relating to the USFJ, and the Supplementary Agreement on Civilian Component clarifies the scope of the civilian component, etc.

(1) Furnishing of USFJ Facilities and Areas

Japan furnishes USFJ facilities and areas under the provision of the SOFA, in accordance with agreements reached through the Joint Committee between the governments of Japan and the United States.

The Government of Japan concludes lease contracts with owners of private and public lands on which USFJ facilities and areas exist in order to ensure the stable use of these facilities and areas. However, should the government be unable to obtain the approval of landowners, it shall acquire usage rights² under the Act on Special Measures for USFJ Land Release,³ compensating the landowners for any loss they may have suffered in the process.

1 Official title: Agreement Under Article VI of the Treaty of Mutual Cooperation and Security Between Japan and the United States of America, Regarding Facilities and Areas and the Status of United States Armed Forces in Japan

2 Official title: Act on Special Measures for USFJ Land Release, Incidental to the Agreement Under Article VI of the Treaty of Mutual Cooperation and Security Between Japan and the United States of America, Regarding Facilities and Areas and the Status of United States Armed Forces in Japan

3 The term "title" means a legal cause that justifies a certain act.

(2) Satisfying Labor Requirements of the USFJ

The SOFA stipulates that the manpower (labor) required by the USFJ shall be satisfied with the assistance of the Government of Japan.

As of the end of FY2021, there were 25,840 USFJ local employees (hereinafter referred to as the “USFJ employees”) at USFJ facilities and areas throughout Japan, working as clerks at headquarters, engineers at maintenance/supply facilities, members of security guards and fire departments on base, and sales staff at welfare/recreational facilities. They support the smooth operations of the USFJ.

The Government of Japan hires these USFJ employees in accordance with the provisions of the SOFA. The MOD supports the stationing of the USFJ by performing administrative work for personnel management, payment of wages, health care, and welfare, etc.

(3) Supplementary Agreement on Cooperation in the Field of Environmental Stewardship

In September 2015, the governments of Japan and the United States signed and effectuated the Agreement on Cooperation in the Field of Environmental Stewardship relating to the USFJ, supplementary to the SOFA. This supplementary agreement represents an international commitment with legal binding force and sets forth provisions concerning the issuance and maintenance of the Japan Environmental Governing Standards (JEGS) and the establishment and maintenance, etc., of procedures for access to USFJ facilities and areas. This agreement was the first of its kind created to supplement the SOFA since the SOFA had entered into force and has a historical significance that differs essentially in nature from conventional improvements in the operations of the SOFA.

 **See** Part IV, Chapter 6, Section 2-2 (Efforts on the USFJ Facilities and Areas)

(4) Supplementary Agreement on Civilian Component

In January 2017, the governments of Japan and the United States signed the Supplementary Agreement on Civilian Component, which came into force on the same day. This Supplementary Agreement clarifies the scope of the civilian component, which is addressed only by a general provision in SOFA, in addition to developing criteria used in evaluating contractor employee positions for eligibility to receive designation as members of the civilian component, and stipulates the procedures for notification and review, etc., together with the exclusion of ordinary residents from the civilian component. The initiative to formulate the Supplementary Agreement on Civilian Component is the second case, following the creation of the Supplementary Agreement on the Environment that supplements the SOFA.

(5) The Revision of the Guidelines Regarding Off-Base U.S. Military Aircraft Accidents

In July 2019, the governments of Japan and the United States agreed on the revision of the Guidelines Regarding Aircraft Accidents in Japan.⁴ This revision aims to refine the procedures for access to the site by Japanese and U.S. government officials in the event of off-base U.S. military aircraft accidents that occur in Japan, and so on. These changes enable more effective, expeditious and proper response to future U.S. military aircraft accidents.

3 USFJ-Related Costs

USFJ-related costs include Host Nation Support, or HNS, costs for implementing the stipulations of the SACO Final Report to mitigate the impact on the people of Okinawa, as well as costs for implementing measures that contribute to mitigating the impact on the local communities associated with the initiatives for the realignment of the U.S. Forces.

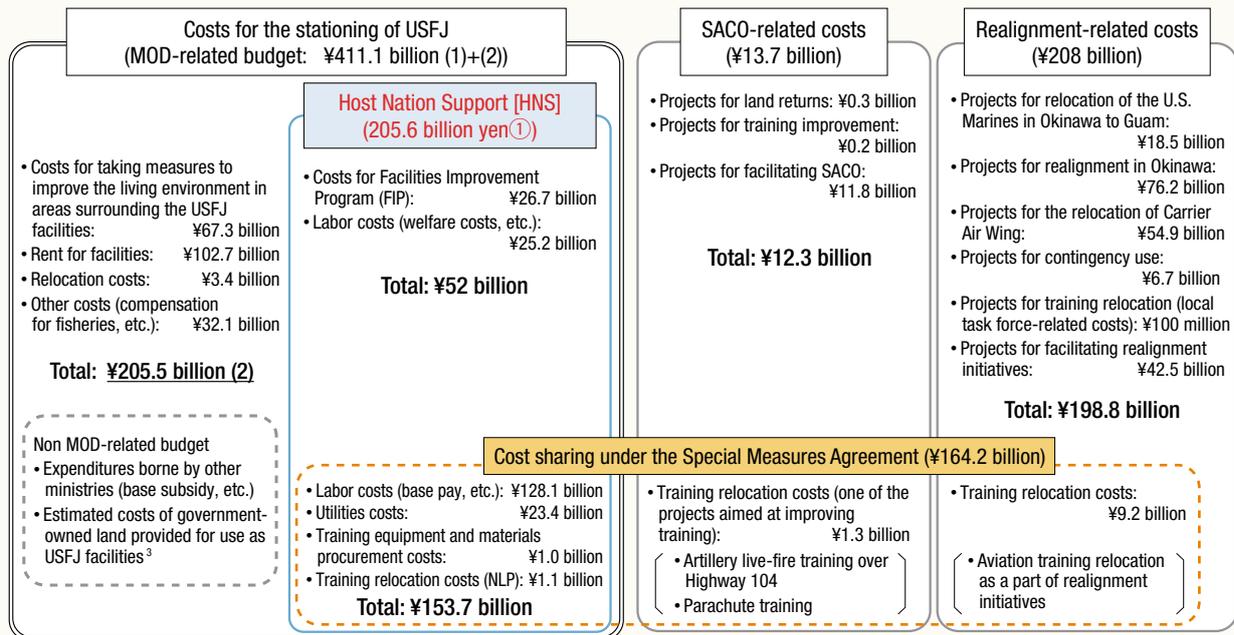
 **See** Fig. III-2-4-1 (USFJ-Related Costs (Budget for FY2022))

4 HNS

HNS plays an important role to ensure the smooth and effective implementation of the Japan-U.S. Security Arrangements. Due to soaring prices and wages in Japan since the mid-1970s, and changes in the international economic situation, Japan began to bear labor costs such as welfare costs for USFJ local employees in FY1978. Then in FY1979, it started to bear costs for the Facilities

⁴ Official title: Guidelines Regarding Off-Base U.S. Military Aircraft Accidents in Japan.

Fig. III-2-4-1 USFJ-Related Costs (Budget for FY2022)



Notes 1: Training relocation costs under the SMA extend into HNS(cost sharing for the stationing of USFJ) as well as SACO-related costs and the realignment-related costs.
 2: The SACO-related costs refer to the costs for implementing the contents of the SACO Final Report to reduce the impact on the people of Okinawa, while the realignment-related costs refer to the costs relating to measures to contribute to reducing the impact on local communities as a part of the realignment initiatives. On the other hand, since HNS is Japan's voluntary effort to bear some costs in light of the importance of ensuring the smooth and effective implementation of the Japan-U.S. Security Arrangements, its nature is different from the SACO-related costs and the realignment-related costs, and is categorized separately.
 3: The costs for the stationing of USFJ include the MOD-related budget, other ministry-related budgets (base subsidy, etc.: ¥40 billion, FY2021 budget) and the estimated costs of government-owned land provided for use as USFJ facilities (¥164.3 billion, FY2021 estimate).
 4: Numbers may not add up due to rounding.

Fig. III-2-4-2 Japan's Cost Sharing under the New SMA, etc. for HNS

Japan's Cost Sharing under the New SMA, etc. for HNS (Cost Sharing for the Stationing of USFJ)	[SMA]	Effective Period	Five years (FY2022 to FY2026)
		Labor Costs	The annual labor costs funded by the GOJ under the New SMA will cover 23,178 people out of all the workers.
		Utilities Costs	23.4 billion yen for FY2022 and FY2023, 15.1 billion yen for FY2024, and 13.3 billion yen for FY2025 and FY2026.
		Training Equipment and Materials Procurement Costs	Up to 20 billion yen over the five years will be borne for costs related to the procurement of training equipment and materials that will contribute not only to the readiness of the USFJ but also to the enhancement of interoperability between the SDF and USFJ.
		Training Relocation Costs	While maintaining the current framework and standards, Alaska will be confirmed as a permissible training relocation site for the Aviation Training Relocation program. The annual training relocation costs funded by Japan will be approximately equal to the budget amount of FY2021, which is approximately 11.4 billion yen.
	[Costs for Facilities Improvement Program (FIP)]	Up to 164.1 billion yen over the five years, with focus on projects that contribute to the readiness and resiliency of the USFJ.	

Improvement Program, or FIP.

In addition, as labor costs soared due to changes in economic conditions surrounding both countries, there arose a concern that the employment stability of the employees would be undermined, and then the activities of

the USFJ could be affected. Therefore, in 1987, Japan and the United States concluded an agreement that sets forth special measures regarding Article 24 of the SOFA (the Special Measures Agreement, or SMA)⁵ as exceptional, limited, and provisional measures relating to the cost

⁵ Official title: Agreement between Japan and the United States of America concerning Special Measures relating to Article XXIV of the Agreement under Article VI of the Treaty of Mutual Cooperation and Security between Japan and the United States of America, Regarding Facilities and Areas and the Status of United States Armed Forces in Japan

sharing principle of the SOFA.

Based on this SMA, Japan started to bear labor costs of eight categories such as the adjustment allowance (currently replaced by the regional allowance). As the SMA was revised later on, the costs shared by Japan have expanded to cover labor costs including base pay and utilities costs from FY1991, training relocation costs from FY1996, and training equipment and materials procurement costs from FY2022.

5 The New SMA for HNS

Based on the fact that the SMA that took effect in April 2016 was valid until the end of March 2021, and as a result of discussions between Japan and the United States, on February 17, 2021, the Governments of Japan and the United States agreed to extend the SMA for one year, and also confirmed

that negotiations would be continued towards the agreement of a new SMA beyond April 1, 2022.

Through subsequent negotiations, on December 21, 2021, Japan and U.S. foreign and defense authorities reached consensus to not only (1) support the smooth and effective operations of the U.S. Forces in Japan, but also to (2) contribute to more effectively enhancing deterrence and response capabilities of the Japan-U.S. Alliance and (3) share costs in a balanced manner in light of tight fiscal conditions. Furthermore, as both parties concurred that the costs borne by Japan should be used to build a foundation upon which the Japan-U.S. Alliance will be further strengthened, the Japanese side decided to refer to this budget by a Japanese phrase that points to its goal of enhancing Alliance readiness and resiliency.

 See Fig. III-2-4-2 (Japan's Cost Sharing under the New SMA, etc. for HNS)

2 Progress of the Realignment of the USFJ

“The United States-Japan Roadmap for Realignment Implementation” (Roadmap) was set forth in May 2006. Subsequently, the following factors were set forth: (1) The necessity of implementing measures to realize visible mitigation of the impact on Okinawa promptly and steadily; (2) The necessity of balancing the realignment package and the strategic rebalance to the Asia-Pacific region, which was set out in the U.S. Defense Strategic Guidance released in January 2012; and (3) The reduction in the cost associated with the relocation of the U.S. Marine Corps to Guam demanded by the U.S. congress. Full-fledged consultation on the coordination of the realignment package took place between the two countries in light of those factors. The achievements thereof were announced as part of the Joint Statements of the “2+2” Meeting and through other means. The 2006 Roadmap stated that, among the III Marine Expeditionary Force (MEF) stationed in Okinawa, the

main focus of the relocation to Guam would be the command elements, but at the “2+2” Meeting in April 2012, the United States decided to alter the composition of the units and to deploy the Marine Air-Ground Task Force (MAGTF)-consisting of command, ground, aviation and logistics support elements-in Japan, Guam, and Hawaii, as well as in Australia as a rotational unit. In addition, the governments of Japan and the United States decided to delink both the relocation of U.S. Marine Corps personnel from Okinawa to Guam and the resulting land returns south of Kadena Air Base from the progress on the Futenma Replacement Facility (FRF).

 See Reference 27 (United States-Japan Roadmap for Realignment Implementation (tentative translation))
Fig. III-2-4-3 (Progress of the Realignment of Force Structure of USFJ and the SDF Described in the “United States-Japan Roadmap for Realignment Implementation”-1 and 2)

3 Stationing of the U.S. Forces in Okinawa

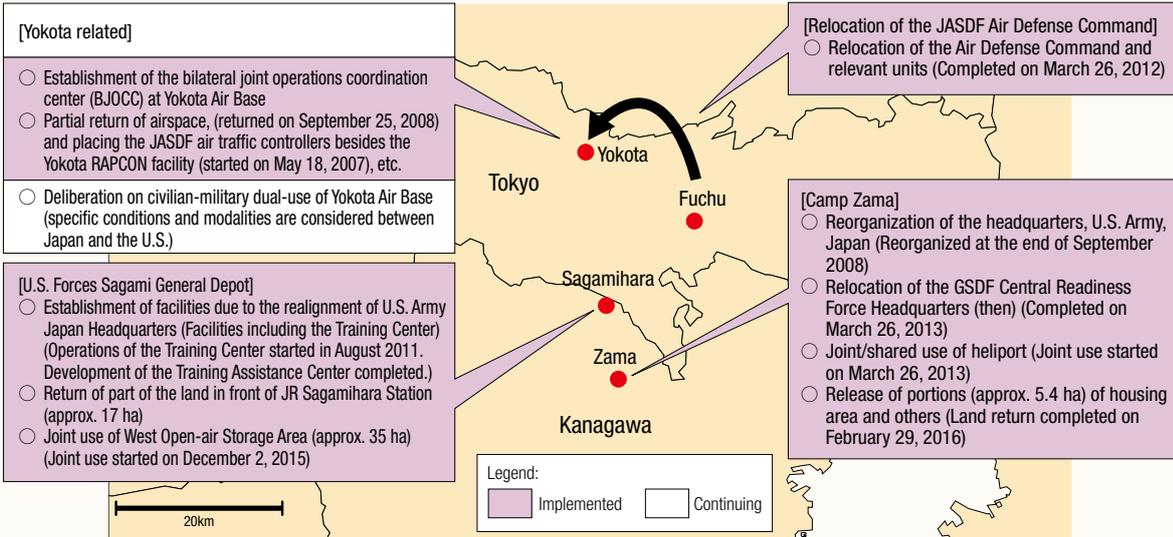
In comparison to areas such as the U.S. mainland, Hawaii, and Guam, Okinawa is located closer to potential conflict areas that could affect Japan's peace and security, including the Korean Peninsula and the Taiwan Strait, but at the same time has the advantage of having a certain distance from these areas that would not heighten military tension

there unnecessarily. In addition, Okinawa, comprising a large number of small islands, is located roughly in the center of the Southwestern Islands having a total length of some 1,200 km and close to key sea lanes for Japan, which depends on marine transportation for over 99% of its overall international trade. Furthermore, its location

Fig. III-2-4-3

Progress of the Realignment of Force Structure of USFJ and the SDF Described in the "United States-Japan Roadmap for Realignment Implementation"-1

1 Realignment in the Kanto Area



2 Realignment in Okinawa

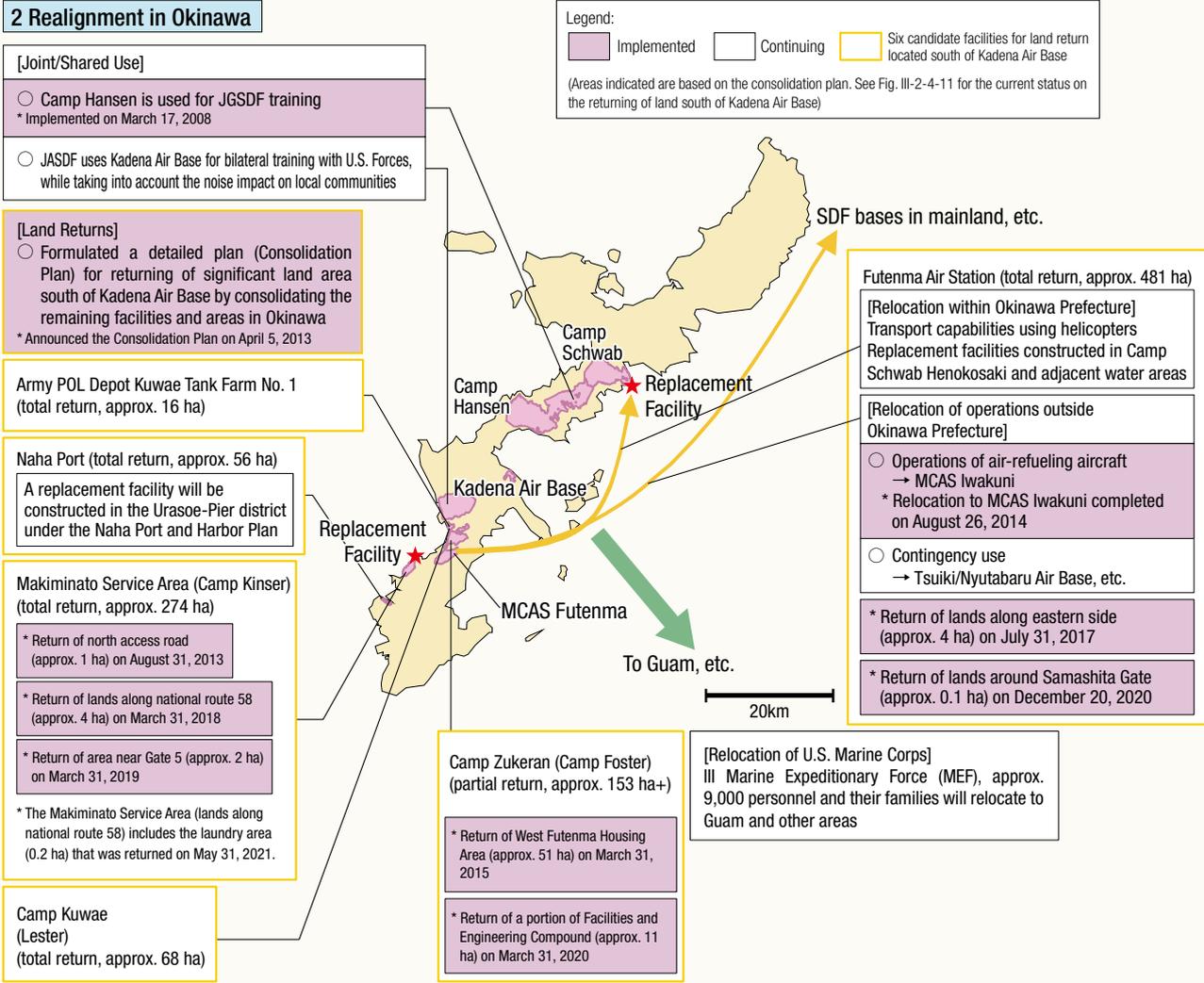


Fig. III-2-4-3

Progress of the Realignment of Force Structure of USFJ and the SDF Described in the "United States-Japan Roadmap for Realignment Implementation"-2

3 Relocation of Aircraft, etc.

The relocation of flight training activities from Kadena, Misawa and Iwakuni to ASDF bases, Chitose, Misawa, Hyakuri, Komatsu, Tsuiki and Nyutabaru, as well as to Guam.

The relocation to Guam, etc., was agreed upon at the Japan-U.S. Joint Committee in January 2011.

Relocation of carrier-based aircraft squadrons to Iwakuni (Relocation completed in March 2018)



Relocation of the KC-130 squadron to Iwakuni (Relocation completed in August 2014)



Part of future civilian aviation facilities were established within MCAS Iwakuni (Iwakuni Kintaikyo Airport opened 2012)



TPY-2 Rader: deployment of so-called "X-band Radar System" (Deployment completed in June 2006)



Deployment of a TPY-2 radar (Deployment completed in December 2014)

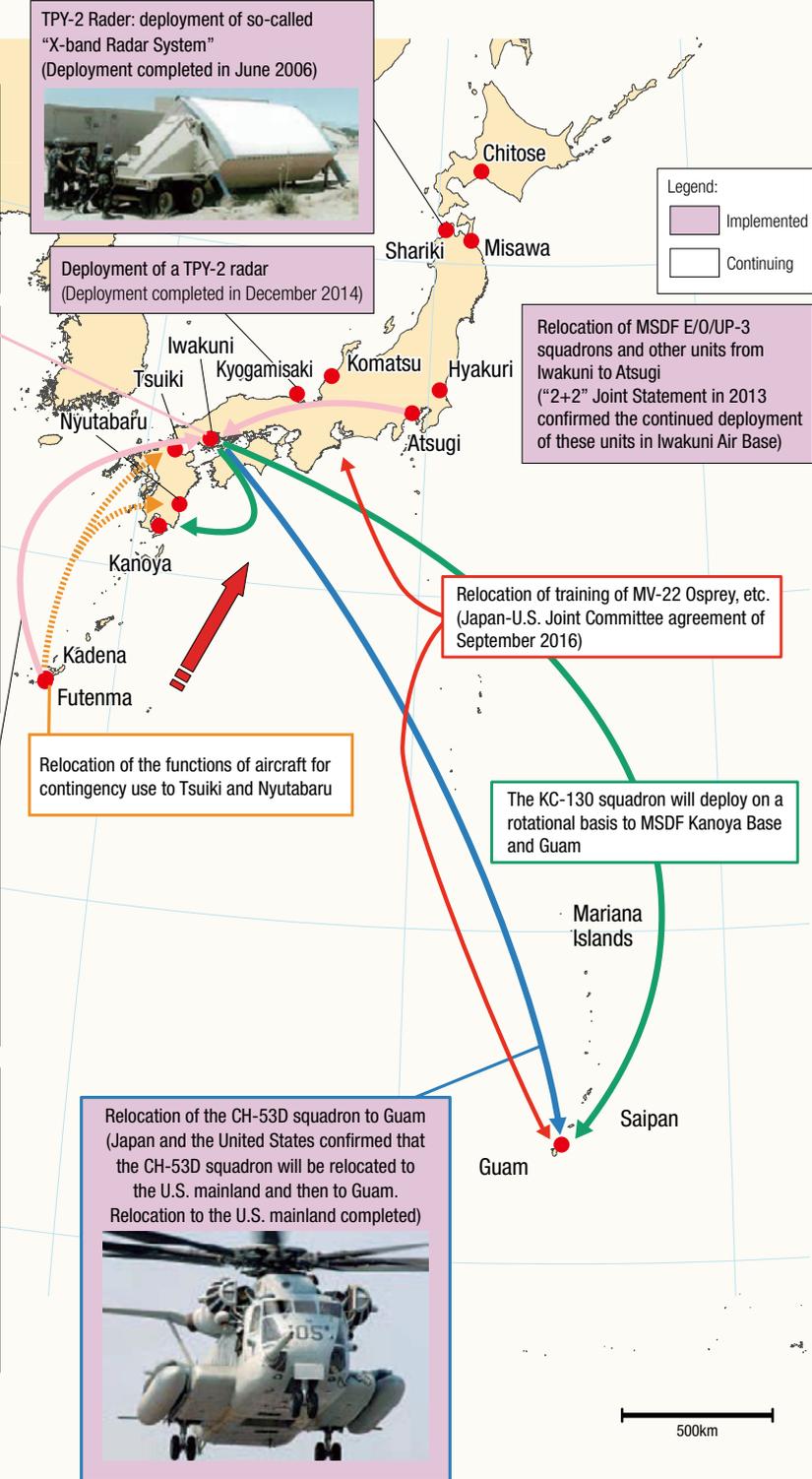
Relocation of MSDF E/O/UP-3 squadrons and other units from Iwakuni to Atsugi ("2+2" Joint Statement in 2013 confirmed the continued deployment of these units in Iwakuni Air Base)

Relocation of the functions of aircraft for contingency use to Tsuiki and Nyutabaru

Relocation of training of MV-22 Osprey, etc. (Japan-U.S. Joint Committee agreement of September 2016)

The KC-130 squadron will deploy on a rotational basis to MSDF Kanoya Base and Guam

Relocation of the CH-53D squadron to Guam (Japan and the United States confirmed that the CH-53D squadron will be relocated to the U.S. mainland and then to Guam. Relocation to the U.S. mainland completed)

is extremely important from the perspective of security, as Okinawa serves as a strategically important target for neighboring countries in both making access to the Pacific from the continent and rejecting access from the Pacific to the continent.

Thus, the stationing of the U.S. Forces in Okinawa,

including the U.S. Marine Corps, which can deal with a wide range of missions with high mobility and readiness, along with the above-mentioned geographical characteristics, further ensures the effectiveness of the Japan-U.S. Alliance, strengthens deterrence, and contributes greatly not only to the security of Japan but also to the peace and stability of

the Indo-Pacific region.

On the other hand, Okinawa has many U.S. Forces facilities and areas such as air bases, maneuver areas and logistics facilities. As of January 1, 2022, approximately 70% of U.S. Forces facilities and areas (for exclusive use) are concentrated in Okinawa Prefecture, occupying approximately 8% of the land area of the prefecture and approximately 14% of the main island of Okinawa. Therefore, it is necessary to make utmost efforts to mitigate the impact on Okinawa, while also considering the above-mentioned security standpoints.

1 Initiatives for Realignment, Consolidation, and Reduction of U.S. Forces Facilities and Areas in Okinawa

When Okinawa was returned to Japan in 1972, the Government of Japan provided 83 facilities and areas covering approximately 278 km² for exclusive use as U.S. Forces facilities and areas. On the other hand, U.S. Forces facilities and areas were strongly requested to be realigned, consolidated and reduced, on the grounds that they seriously affect the lives of people in Okinawa Prefecture.

Both countries have continued their initiatives to realign, consolidate, and reduce U.S. Forces facilities and areas, centering on those subjects to the strong local requests, and, in relation to the so-called 23 issues, it was agreed in 1990 that both sides would proceed with the required coordination and procedures toward the return of land. Moreover, it was agreed in 1995 that initiatives would also be made to resolve the so-called Three Okinawa Issues: the return of Naha Port (Naha City), the return of Yomitan Auxiliary Airfield, and the relocation of artillery live-fire

See Fig. III-2-4-4 (The Geopolitical Positioning of Okinawa and the Significance of the U.S. Marine Corps Stationed in Okinawa [image])
 Fig. III-2-4-5 (Location of Major U.S. Forces Stationing in Okinawa (As of March 31, 2021))

Fig. III-2-4-4 The Geopolitical Positioning of Okinawa and the Significance of the U.S. Marine Corps Stationed in Okinawa [image]

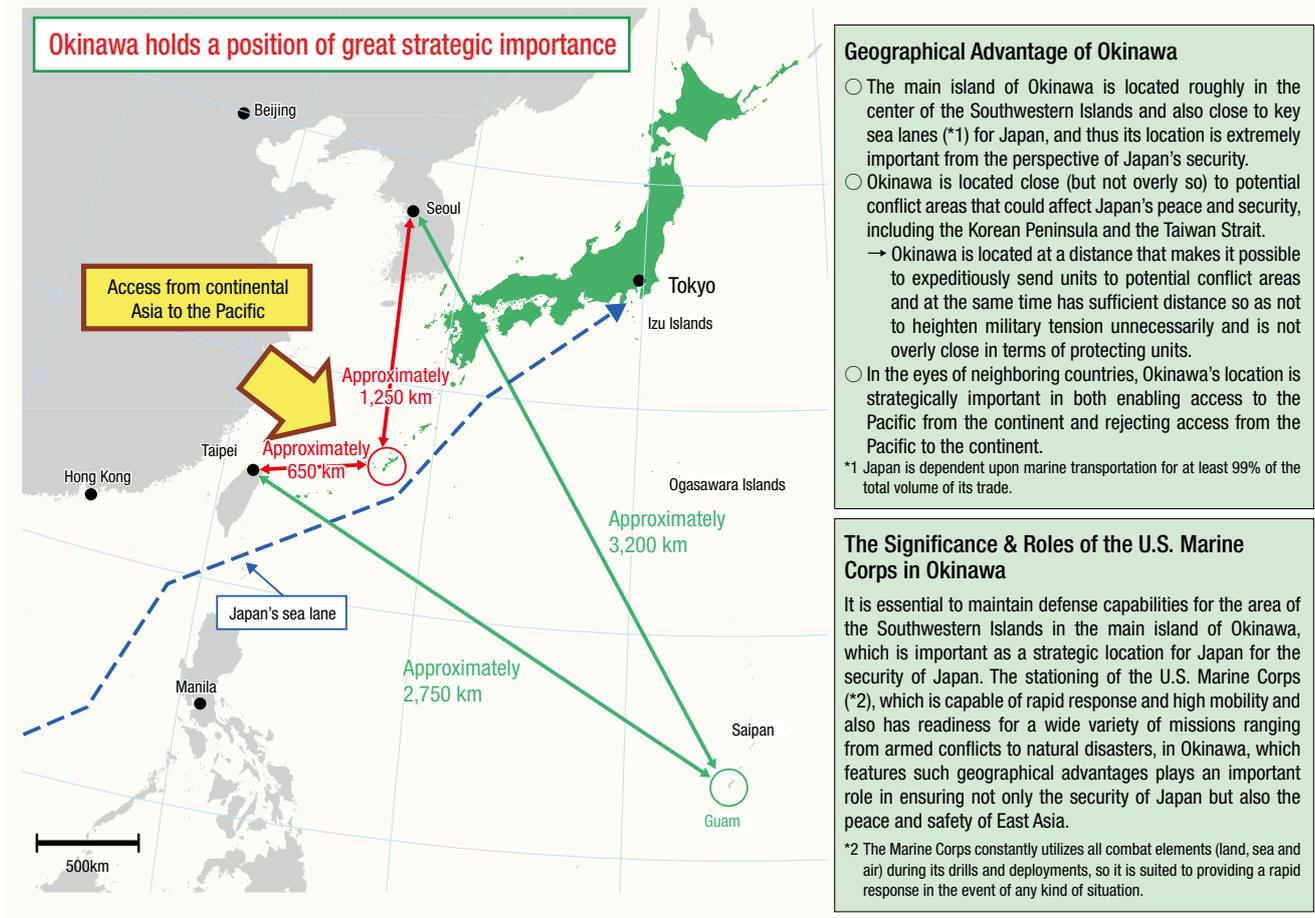
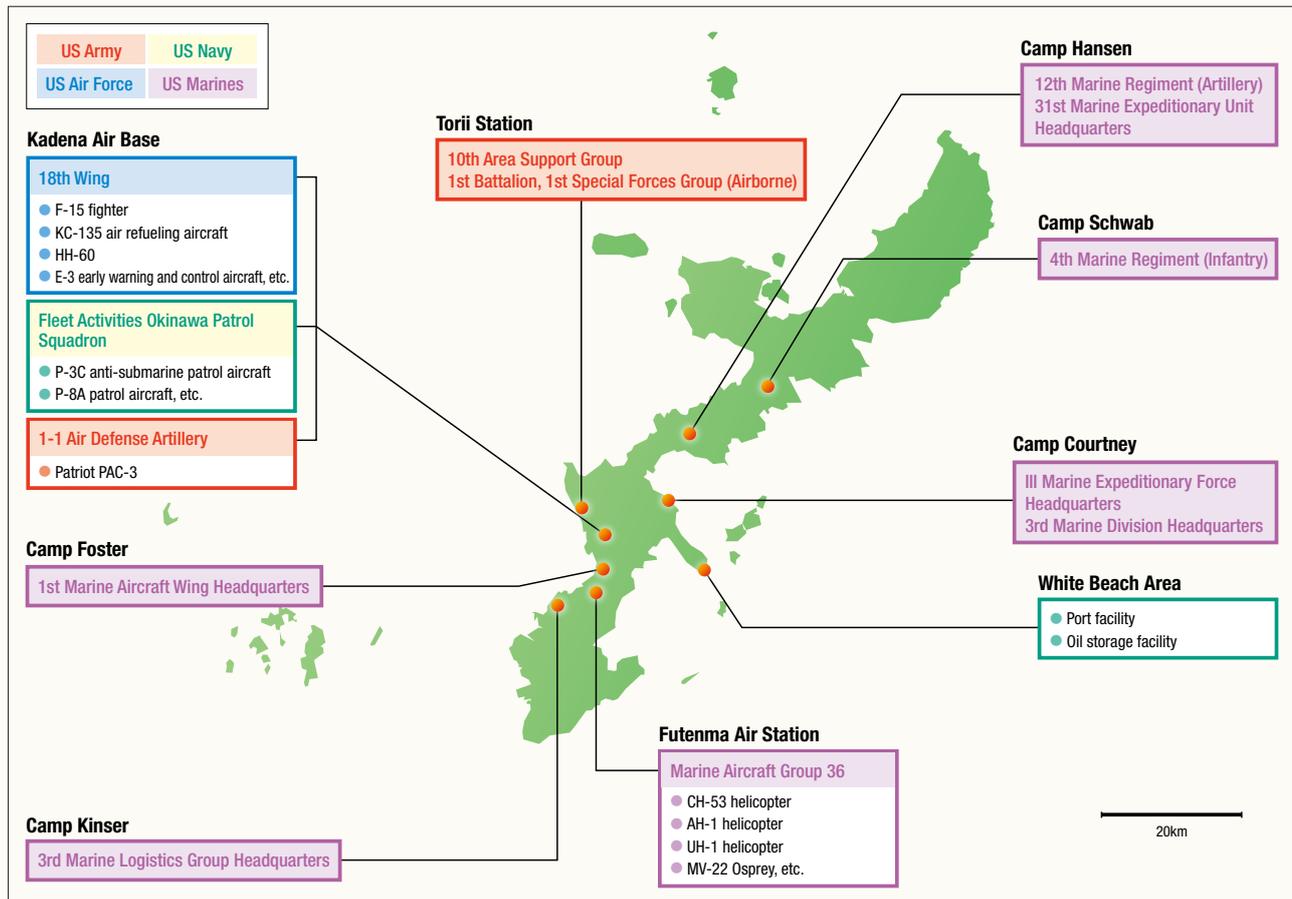


Fig. III-2-4-5

Location of Major U.S. Forces Stationing in Okinawa (As of March 31, 2021)



Note: Based on information on the U.S. Forces Japan website and other sources.

training over Highway 104.

Subsequently, in response to an unfortunate incident that occurred in 1995, as well as the refusal of the then Governor of Okinawa to sign land lease renewal documents under the Act on Special Measures for USFJ Land Release, the Government of Japan decided to devote even greater initiatives towards realignment, consolidation, and reduction, believing that the impact should be shared by the whole nation. In order to hold consultations on issues related to U.S. Forces facilities and areas in Okinawa, the Government of Japan established the Okinawa Action Council between the central government and Okinawa Prefecture, and the Special Action Committee on Okinawa (SACO) between Japan and the United States, and the so-called SACO Final Report was compiled in 1996.

See Reference 28 (Outline of 23 Issues)

2 Outline of SACO Final Report

The SACO Final Report stipulates the return of land, the adjustment of training and operational procedures, noise

reduction, and the improvement of operational procedures regarding the SOFA procedures, and also refers to the related facilities and areas covered. The land to be returned based on the SACO Final Report represents approximately 21% (about 50 km²) of U.S. Forces facilities and areas in Okinawa at that time, exceeding the amount of land returned during the period between the reversion of Okinawa and the implementation of the SACO Final Report, which is roughly 43 km².

See Reference 29 (The SACO Final Report (tentative translation)), Reference 30 (Progress of the SACO Final Report) Fig. III-2-4-6 (Facilities and Areas Related to the SACO Final Report [image]) Fig. III-2-4-7 (Changes in Number and Area of the USFJ Facilities and Areas (Exclusive Use) in Okinawa)

3 Return of a Major Portion of the Northern Training Area

The condition for returning the Northern Training Area was to relocate seven helipads in the area to be returned to the preexisting training area. However, the Government

Fig. III-2-4-6

Facilities and Areas Related to the SACO Final Report [image]

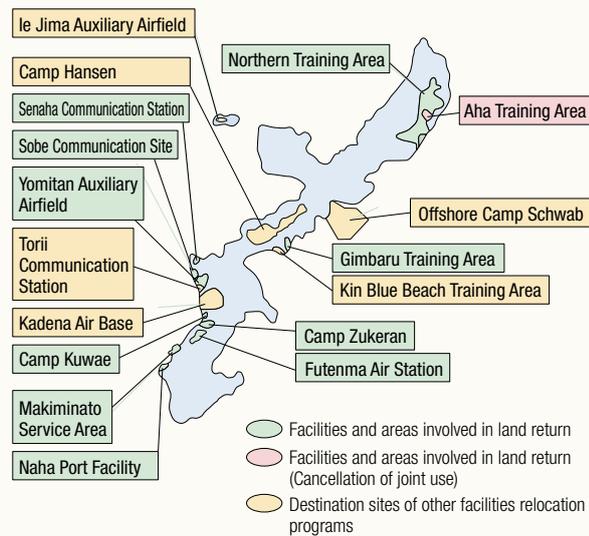
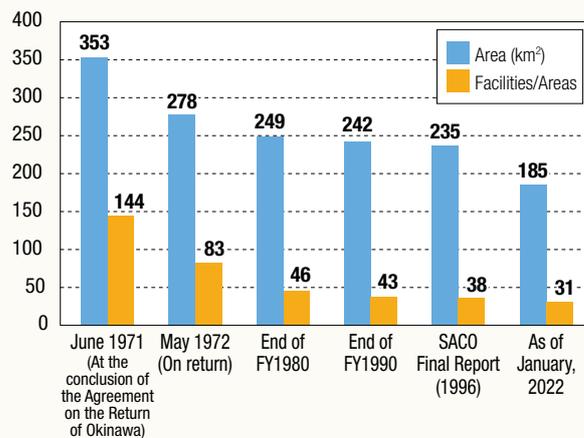


Fig. III-2-4-7

Changes in Number and Area of the USFJ Facilities and Areas (Exclusive Use) in Okinawa



of Japan reached an agreement with the U.S. side to give considerations for the natural environment and to relocate not all seven but the minimum number of six helipads necessary, and proceeded with the construction work. The relocation of the helipads completed in December 2016, and the return of approximately 4,000 ha, a major portion of the Northern Training Area located in the villages of Kunigami and Higashi, was achieved based on the SACO Final Report.

The returned land accounts for approximately 20% of USFJ facilities and areas (for exclusive use) in Okinawa. The return is the largest one since the reversion of Okinawa to the mainland, and had been an issue for 20 years since the SACO Final Report in 1996.

Based on the Act on Special Measures Concerning Promotion of Effective and Appropriate Use of the Lands in Okinawa Prefecture Previously Provided for Use by the Stationed Forces, the MOD took measures to remove obstacles (such as soil contamination survey, etc.) so that the landowners, etc., could use returned lands effectively and appropriately, and transferred the land to the landowners in December 2017. In addition, in July 2021, the northern part of the main island of Okinawa, including the returned lands, was inscribed as the World Natural Heritage Site as part of “Amami-Oshima Island, Tokunoshima Island, the northern part of Okinawa Island and Iriomote Island.”

4 Relocation and Return of MCAS Futenma

In May 2006, along with the initiatives set forth in the

Roadmap related to the realignment of the U.S. Forces, the measures have been implemented to alleviate the impact on the local communities in Okinawa while maintaining the deterrence capabilities.

The Government of Japan believes that it is imperative not to allow MCAS Futenma to remain indefinitely at its current location, which is in the vicinity of houses, schools, etc., in the center of Ginowan City, Okinawa Prefecture, and considers that this is a fundamental idea shared between the Government of Japan and the people of Okinawa.

As for the relocation of MCAS Futenma, the Government of Japan has not changed its stance that the current plan to construct the FRF at the Camp Schwab Henokosaki area (Nago City) and adjacent waters is the only solution to avoid the continued use of MCAS Futenma.

The Government of Japan will make further efforts to achieve the relocation and return of MCAS Futenma as early as possible and to mitigate the impact on Okinawa in a speedy manner. The return of MCAS Futenma is expected to eliminate danger in the area and to contribute to the further growth of Okinawa, including Ginowan City, through the reuse of the area (approximately 476 ha with a land area 100 times larger than Tokyo Dome).

(1) Background Concerning the Futenma Replacement Facility

Considering the occurrence of the U.S. Forces helicopter crash in Ginowan City in August 2004, bilateral discussions on the realignment have been made towards realizing the relocation and return of MCAS Futenma at the earliest possible date in order to resolve the concern of the residents living in the vicinity.

In the SCC (“2+2”) document compiled in October

2005, the initiative to “locate the FRF in ‘L’-shaped configuration that combines the shoreline areas of Camp Schwab and adjacent water areas of Oura Bay” was approved. However, since this L-shape meant that U.S. military aircraft would fly over settlements in Nago City and Ginoza Village, a request was submitted to avoid flights over these settlements.

In light of this, based on negotiation and agreement with the local municipalities including Nago City, it was decided to stipulate in the Roadmap that the FRF be located in a V-shape configuration that “combines Henokosaki and adjacent water areas of Oura and Henoko Bays.” With regard to construction of this replacement facility, “a Memorandum of Basic Understanding” was exchanged between the then Governor of Okinawa Inamine and the then Minister of State for Defense Nukaga in May 2006.

After the change of government in September 2009, the Exploratory Committee for Okinawa Base Issues was established. After reviews conducted by the Committee, both governments, at the “2+2” Meeting held in May 2010, confirmed the intention to locate the FRF in the Camp Schwab Henokosaki area and the adjacent waters, and decided that a study by experts regarding the replacement facility’s location, configuration and construction method would be completed promptly. The two sides also agreed to take concrete measures to mitigate the impact on Okinawa. Subsequently, at the “2+2” Meeting held in June 2011, it

was decided that the runway would take a V-shape.

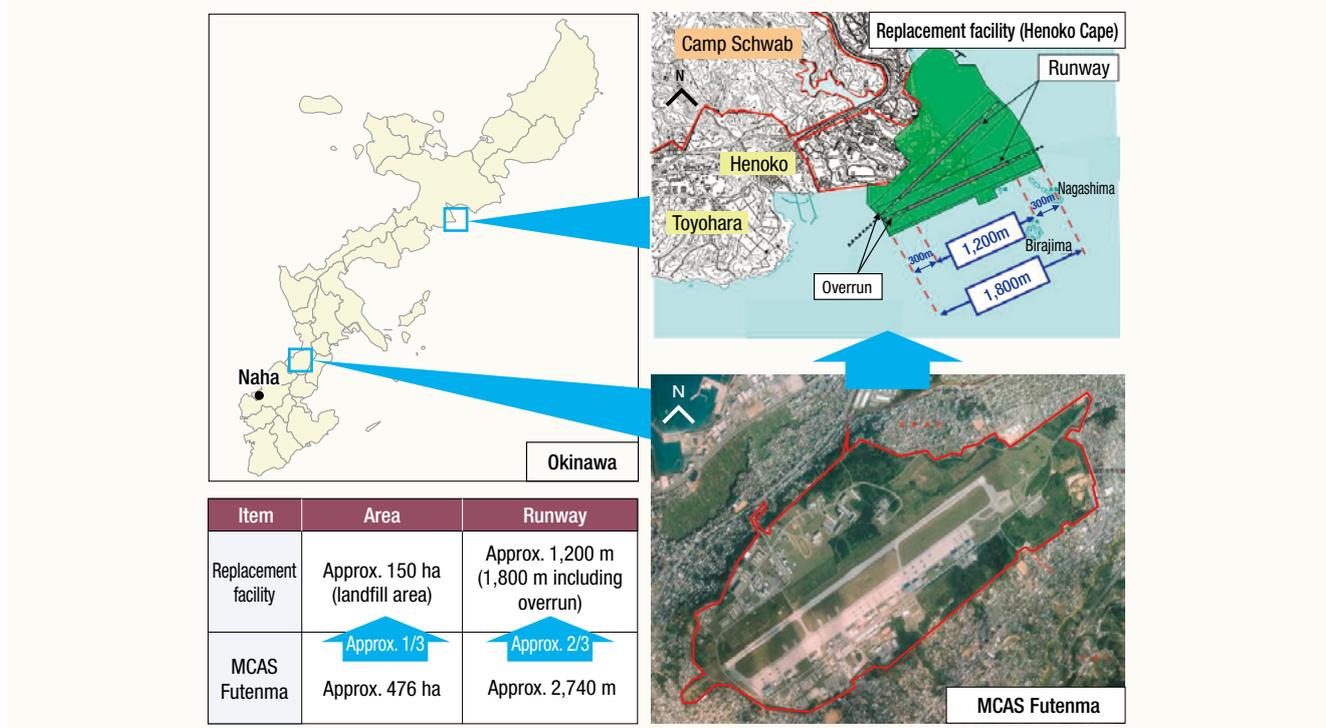
During the deliberation process which led to these conclusions, first of all, it was determined that, from a security perspective, the deterrence of the U.S. Forces, including that of the U.S. Marine Corps stationed in Okinawa that is located in a crucial area for the security of Japan, cannot be lessened while there remains instability and uncertainty in the security environment in East Asia. Furthermore, concern was expressed that the functions of the U.S. Marine Corps such as mobility and readiness would be weakened if the helicopter units stationed at MCAS Futenma were to be detached from the other Marine units stationed in Okinawa and moved abroad or out of the prefecture. Therefore, it was concluded that the FRF had to be located within Okinawa Prefecture.

Also at the “2+2” Meetings in April 2012, October 2013, April 2015, August 2017, April 2019, March 2021, and January 2022, and in other instances including the joint statement issued at the Japan-U.S. summit meetings in February and November 2017, April 2018, April 2021, and May 2022, the governments of Japan and the United States confirmed that the plan to construct the FRF at Camp Schwab Henokosaki area and adjacent waters is the only solution that avoids the continued use of MCAS Futenma.

 See Reference 31 (Background of the Futenma Replacement Facility)

Fig. III-2-4-8

Comparison between the Replacement Facility and MCAS Futenma [image]



Reference 32 (Estimated Timelines for the Return of Facilities and Areas South of Kadena)

Fig. III-2-4-8 (Comparison between the Replacement Facility and MCAS Futenma [image])

(2) Relocation of MCAS Futenma and Mitigation of the Impact on Okinawa

The relocation of MCAS Futenma holds more significance than merely moving the facility from one location to another. Rather, it involves reduction in the base's functions and area in Okinawa, and contributes greatly to mitigating the impact on Okinawa.

a. Distribution of Functions Offered by MCAS Futenma

MCAS Futenma fulfills the following functions relating to the aviation capabilities of the U.S. Marine Corps stationed in Okinawa: (1) Operation of the Osprey and other aircraft; (2) Operation of air refueling aircraft; and (3) Accepting transient aircraft in contingencies. Of these three functions, only "(1) operation of the Osprey and other aircraft" will be relocated to Camp Schwab. As for "(2) operation of air refueling aircraft," all 15 KC-130 air refueling aircraft were relocated to MCAS Iwakuni (in Iwakuni City, Yamaguchi Prefecture) in August 2014.

This marked the completion of a task that has remained unresolved for 18 years since the SACO Final Report in 1996, enabling a vast majority of fixed-wing aircraft located in MCAS Futenma to be moved outside Okinawa Prefecture. This move also led to the relocation of approximately 870 USFJ personnel, civilian employees, and dependents.

Moreover, the function of "(3) accepting transient aircraft in contingencies" will also be transferred to Tsuiki Air Base and Nyutabaru Air Base. In October 2018, Japan and the United States agreed on developing facilities that would be necessary for relocating the function, and related work such as construction of the facilities has been carried out.

b. Reduction in Area

The area required for the land reclamation to build the FRF is approximately 150 ha, less than one-third of the approximately 476 ha of MCAS Futenma, and the FRF will be equipped with a significantly shorter runway at 1,200 m (1,800 m including the overruns) compared to the current runway length of 2,740 m at MCAS Futenma.

c. Reduction in Noise and Risks

Two runways will be constructed in a V-shape, which enables the flight path for takeoff and landing to be located over the sea, in line with the requests of the local community. In MCAS Futenma, flight paths used daily for

training and other purposes are located over residential areas, whereas flight paths in the FRF will be changed to over the sea, thereby reducing noise and risks.

For example, while more than 10,000 households are located in areas requiring housing noise insulation near MCAS Futenma, there will be zero households requiring such insulation around the FRF. This means that the noise levels experienced by all households will comply with the environment criteria applied to exclusive housing areas. In the case that an aircraft encounters any contingency, safety on the ground can be ensured by diverting the aircraft offshore.

(3) The Necessity of Constructing the FRF in Okinawa Prefecture

The U.S. Maritime Corps in Okinawa consists of air, ground, logistics, and command elements. The interaction of those elements is indispensable for U.S. Marine Corps operations characterized by great mobility and readiness, so the FRF needs to be located within Okinawa Prefecture so that rotary-wing aircraft stationed at MCAS Futenma will be located near the elements with which they train, operate, or otherwise work on a regular basis.

(4) Completion of Environmental Impact Assessment Procedures

The MOD sent the environmental impact assessment scoping document in 2007 to the Governor of Okinawa and other parties. After the MOD worked on revising the document based on the opinions provided by the governor, the MOD completed the environmental impact assessment procedures by sending the revised assessment document to related parties including the governor in December 2012, while making the assessment document available for public review.

Throughout these procedures, the MOD received a total of 1,561 opinions from the Governor of Okinawa on six occasions, made all the required revisions, and reflected them in the content of the environmental assessment. In this way, the MOD had taken steps to comply with relevant laws, asked opinions and ideas from Okinawa Prefecture over a sufficient period of time, and reflected them in the assessment.

(5) Promotion of the FRF Construction Project

a. Suits over the Revocation of the Landfill Permit

The Director General of the Okinawa Defense Bureau submitted the Landfill Permit Request on public waters

to Okinawa Prefecture in March 2013, and then Governor of Okinawa Nakaima approved this in December 2013. However, then Governor of Okinawa Onaga revoked the landfill permit in October 2015, leading to the filing of three suits over the revocation of the landfill permit between the Government of Japan and Okinawa Prefecture.⁶

Under these circumstances, the court came up with a settlement recommendation, and the Government of Japan and Okinawa Prefecture reached a court-mediated settlement agreement in March 2016. In the settlement, the Government of Japan and Okinawa mutually affirmed that after the final judicial ruling is handed down by the Supreme Court, they would abide by the ruling and take steps in line with the spirit of the text of the ruling and the reasons conducive to the text, and continue to take responses in good faith by cooperating with each other in accordance with the purpose of the ruling.

Pursuant to the provisions of the settlement agreement, the Okinawa Defense Bureau immediately suspended the landfill work while the Minister of Land, Infrastructure, Transport and Tourism issued an instruction for correction based on the Local Autonomy Act to then Governor Onaga to repeal the revocation of the landfill permit. Subsequently, in December 2016, after examination by the Central and Local Government Dispute Management Council and deliberation by the Naha Branch of the Fukuoka High Court, the Supreme Court set forth the decision that the revocation of the landfill permit by then Governor Onaga was illegal.

b. Judgment of the Supreme Court

In the judgment, the Supreme Court ruled that then Governor Nakaima's decision was not illegal. The court stated that no circumstances could be found indicating that then Governor Nakaima's decision that the landfill was in compliance with the condition in Article 4 (1) (i) of the Act on Reclamation of Publicly-owned Water Surface, "that it is appropriate and reasonable as the use of national land," had no foundation in fact, or clearly lacked reasoning under socially accepted conventions. The reasons given by the court include: (1) the area of the replacement facilities and the landfill area will be significantly reduced from the area of the MCAS Futenma facilities, and (2) flights over residential areas by aircraft can be avoided by the landfill in the coastal

area that puts the runway extension out to sea.

Moreover, regarding whether the construction of replacement facilities takes environmental protection and other considerations into adequate account, the Supreme Court, found that construction methods, environmental protection measures and countermeasures that can conceivably be taken at this point in time have been taken and that there is sufficient consideration for disaster prevention. The Supreme Court determined that it cannot be said that then Governor Nakaima's decision was illegal. The court did not find that there was anything particularly unreasonable in then Governor Nakaima's decision-making process and the content of the decision that the construction met the condition of Article 4 (1) (ii) of the Act on Reclamation of Publicly-owned Water Surface, "the landfill gives sufficient consideration to the protection of the environment and prevention of disasters."

c. Retraction of the Revocation of the Landfill Permit

Following this Supreme Court ruling, in December 2016, then Governor Onaga retracted the revocation of the landfill permit and the Okinawa Defense Bureau resumed the replacement facilities construction project. In April 2017, it started the construction of the seawall, the main part of the public waters reclamation.

d. Suit Related to Damage to the Reefs on the Seafloor, etc.

In July 2017, Okinawa Prefecture filed a suit in the Naha District Court, requesting that this seawall construction may not be allowed to damage the reefs on the seafloor, etc., without permission from the Governor of Okinawa based on the regulations of Okinawa Prefecture. Subsequently, the district court dismissed Okinawa Prefecture's claim in March 2018, and the Naha Branch of the Fukuoka High Court dismissed Okinawa Prefecture's appeal in December of the same year. In the same month, Okinawa Prefecture filed a petition of final appeal with the Supreme Court, but withdrew the petition in March 2019.

e. Situation Surrounding the Landfill Work

In August 2018, Okinawa Prefecture revoked the landfill permit again on the basis of problems concerning environmental protection measures and the soil foundation of the landfill area. In October of the same year, the Director General of Okinawa Defense Bureau filed a request with

⁶ (1) The suit filed by the Government of Japan (the Minister of Land, Infrastructure, Transport and Tourism) as plaintiff based on the provisions of Article 245-8 of the Local Autonomy Act, seeking a court ruling instructing a retraction of the revocation of the landfill permit by then Governor Onaga (the so-called subrogation suit); (2) the suit filed by the Governor of Okinawa Prefecture based on the provisions of Article 251-5 of the Local Autonomy Act, seeking to invalidate the decision to suspend the validity of the revocation of the landfill permit (the decision to stay execution) by the Minister of Land, Infrastructure, Transport and Tourism as the illegal "involvement of the state;" and (3) the suit filed by Okinawa Prefecture based on the provisions of Article 3 of the Administrative Case Litigation Act, seeking to invalidate the decision to stay execution by the Minister of Land, Infrastructure, Transport and Tourism.

November 2018



April 2022



Progress of landfill work

the Minister of Land, Infrastructure, Transport and Tourism for a stay of execution under the Administrative Complaint Review Act against the revocation of the permit, and the stay of execution was upheld. Following the ruling, the Okinawa Defense Bureau started the landfill work in December of the same year in the waters south of Camp Schwab. In August 2021, the landfill up to 4.0 m above sea level was completed, and the landfill work is steadily progressing. (As of May 2022)

In April 2019, the Minister of Land, Infrastructure, Transport and Tourism determined that the revocation of the landfill permit by Okinawa Prefecture should be repealed. Dissatisfied with this decision, the Governor of Okinawa filed a request for a review with the Central and Local Government Dispute Management Council in the same month. The Council dismissed this request in June 2019. In July 2019, protesting the dismissal of the Council, the Governor of Okinawa filed a lawsuit with the Naha Branch of the Fukuoka High Court to revoke the government's involvement (determination by the Minister of Land, Infrastructure, Transport and Tourism), and in August 2019 filed a suit with the Naha District Court seeking the revocation of the determination by the Minister of Land, Infrastructure, Transport and Tourism.

Of these suits, in October of the same year the Naha Branch of the Fukuoka High Court dismissed the suit by the Governor of Okinawa to revoke the government's involvement, and the Governor of Okinawa filed a petition

for the Supreme Court to take up the appeal, but in March 2020 the Supreme Court rejected the request by the Governor of Okinawa. On the other hand, with regards to the suit to revoke the ruling, the Naha District Court dismissed the request by Okinawa Prefecture in November 2020, and Okinawa Prefecture appealed to the Naha Branch of the Fukuoka High Court. Ultimately, however, the Naha Branch of the Fukuoka High Court also dismissed Okinawa Prefecture's appeal in December 2021. In that same month, Okinawa Prefecture filed a petition of final appeal with the Supreme Court.

In implementing the relocation, the MOD has conducted environmental impact assessment procedures for approximately five years and has given the utmost consideration for the natural environment. Throughout the procedures, more than 1,500 opinions have been expressed by the Governor of Okinawa on six occasions, all of which the MOD reflected in the environmental assessment.

If the waters are enclosed by the seawall, the coral will be isolated from the surrounding sea with the flow of seawater shut down, a situation which will affect the coral habitat. Therefore, corals living in the landfill area on the southern side, which were designated for conservation, were transplanted before the area was enclosed. The standard for conservation of corals is stricter than the standard that was applied to the landfill related to the second runway of Naha Airport.⁷ Regarding coenobita, which are a nationally designated protected species, and the shellfish and crustaceans designated as endangered species, relocation from the seashore and seafloors in the construction area on the southern side to other areas is also being appropriately implemented based on instructions and advice from experts.

Regarding the soil foundation of the landfill area, as a result of a study conducted on the stability of seawalls and other structures in the waters north of Camp Schwab in light of the results of a boring survey, it has been confirmed that although the work to improve the soil foundation is necessary, it is possible to implement the construction of seawalls and landfill while ensuring the required stability through prevailing and adequately proven construction methods.⁸ Since September 2019, the Technical Review Committee on Futenma Replacement Facility Construction Project, consisting of experts in the fields of geotechnical,

⁷ Specifically, in relation to the construction of the second runway of Naha Airport, around 37,000 clusters of small corals were transplanted. If the same standard as the one applicable to the construction of the alternative facility was applied, the number of clusters of small corals transplanted would have been around 170,000.

⁸ The standard methods are the sand compaction pile method, the sand drain method, and the paper drain method. Among examples of projects in which these methods were used is the construction work to expand Tokyo International Airport (Haneda Airport).

structural, coastal, and pavement engineering, has been held to obtain objective technical recommendations and advice in order to make the design, construction, and maintenance of seawalls and landfill sites more rational for the future implementation of the project.

Also in December 2019, the Okinawa Defense Bureau announced that, based on the results of the studies that had been conducted so far, it would take nine years and three months from the commencement to the completion of construction according to the revised plan, and about 12 years to complete the “admin procedures” described in the Okinawa Consolidation Plan and a fund of about 930 billion yen.

After due consideration including hearing experts’ insights on the environment and others, in April 2020, the Okinawa Defense Bureau submitted to the Governor of Okinawa Prefecture the Landfill Permit Revision Request given the additional implementation of the soil improvement work, etc., based on the Act on Reclamation of Publicly-owned Water Surface.

In November 2021, the Governor of Okinawa Prefecture voiced disapproval of the permit revision request on the grounds that surveys of the soil foundation and environmental protection measures at the planned landfill area were inadequate. In response, in December 2021, the Director General of the Okinawa Defense Bureau filed a request for review with the Minister of Land, Infrastructure, Transport and Tourism under the Administrative Complaint Review Act. In April 2022, the Minister of Land, Infrastructure, Transport and Tourism determined revocation of the disapproval by the Governor of Okinawa, and also issued an instruction for correction based on the Local Autonomy Act to approve the permit revision request. Dissatisfied with this determination and the instruction for correction, the Governor of Okinawa filed respective requests for review with the Central and Local Government Dispute Management Council in May 2022.

In February 2019, Okinawa Prefecture held a referendum on whether or not to support the landfill work related to the relocation of MCAS Futenma to the Henokosaki area in Nago City. As a result, 114,933 voters voted for the work, 434,273 voters voted against it, and 52,682 voters voted neither (the total number of votes cast was 605,385 and the voter turnout was 52.48%). The present situation in which U.S. bases are concentrated in Okinawa is in no way acceptable, and it is a grave responsibility of the government to mitigate the impact on Okinawa. The

government takes the results of the prefectural referendum seriously and will continue to do its utmost to mitigate the impact of the U.S. bases in Okinawa.

It is imperative to prevent MCAS Futenma, which is surrounded by houses and schools and which is said to be the most dangerous base in the world, from continuing to be used indefinitely and to pose a danger. The government believes that this view is shared with the people of Okinawa.

The relocation to Henoko does not mean that all functions of MCAS Futenma will be relocated there. Of MCAS Futenma’s three functions, two will be moved out of Okinawa while the remaining one will be relocated to Henoko, resulting in the total return of the site of MCAS Futenma. Indeed, from the viewpoint of sharing the impact, progress is being made in implementation of measures to realize the total return of the site of MCAS Futenma based on understanding and cooperation by local governments outside Okinawa. The measures include the relocation of air refueling aircraft to Yamaguchi Prefecture and the relocation of the function of accepting transient aircraft in contingencies to Fukuoka and Miyazaki Prefectures.

Although over 25 years have passed since Japan and the United States agreed on the total return of the site of MCAS Futenma, it has not been achieved yet. The MOD believes that the return must not be postponed any longer. The Government of Japan intends to continue making efforts to secure the understanding of local residents in Okinawa through years of persistent dialogue, and do its utmost to achieve the total return of MCAS Futenma as early as possible.

5 Force Reduction and Relocation to Guam

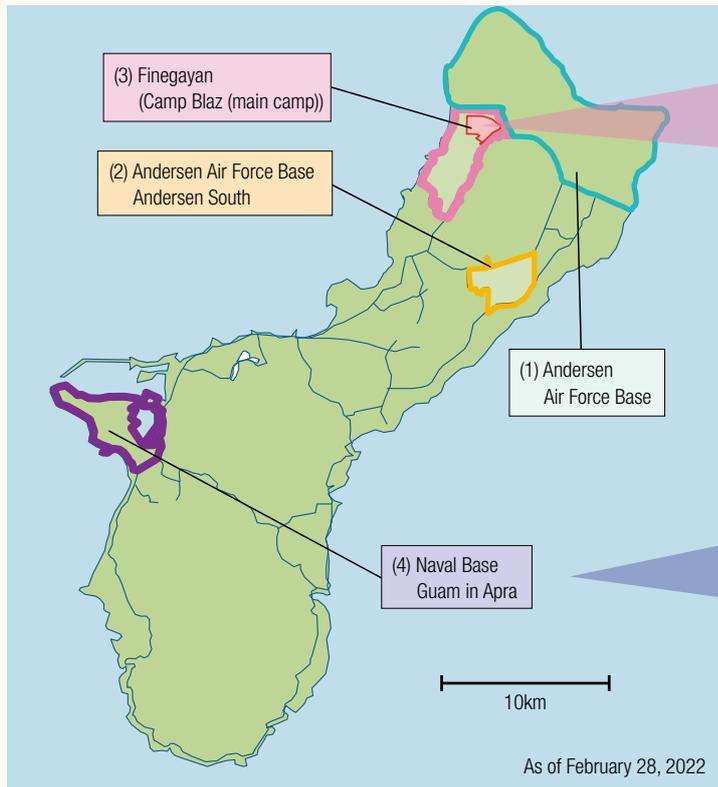
Since the Roadmap was announced in May 2006, the governments of Japan and the United States held a series of consultations on the reduction of the U.S. Forces in Okinawa.

(1) Timing and Size of Relocation

The 2006 Roadmap stated that approximately 8,000 personnel of the III MEF and their approximate 9,000 dependents would relocate from Okinawa to Guam by 2014, but the “2+2” Meeting in June 2011 and other agreements set the timing of the relocation for the earliest possible date after 2014.

Subsequently, at the “2+2” Meeting held in April 2012, the governments of Japan and the United States decided

Fig. III-2-4-9 Progress of the Guam Relocation Project [image]



Progress of the Building Development Project for Non-commissioned Officers in Finegayan



Progress of the project to develop the Headquarters building in the Naval Base Guam in Apra area

Relocation Project Areas	Status of Progress of GOJ Funded Projects
(1) Andersen AFB	On-base infrastructure project (*1) is in progress.
(2) Andersen South Area	Training areas (*2) project is in progress.
(3) Finegayan (Camp Blaz (main camp))	On-base infrastructure project (*1) is in progress. The Building Development Project for Non-commissioned Officers (*5) and other work are in progress.
(4) Naval Base Guam in Apra	On-base infrastructure project (*1) is complete. Headquarters building (*3) project is in progress. Medical Clinic project (*4) is in progress.

*1 On-base infrastructure project includes site preparation and development of roads, water supply and sewerage system and telecommunication system for construction of facilities such as office buildings for the Marines.

*2 Training areas project is to develop facilities for the Marines to conduct basic training such as military operations in urban terrain and driver convoy course.

*3 The headquarters building project is to develop a headquarters building for the Marines.

*4 Medical clinic project is to develop a medical clinic for the Marines.

*5 The Building Development Project for Non-commissioned Officers is to develop a non-commissioned officer building for Marines.

to delink both the relocation of III MEF personnel from Okinawa to Guam and the resulting land return south of Kadena Air Base from the progress on the FRF and to adjust the composition of the units and the number of personnel to be relocated to Guam.

As a result, MAGTF is to be located in Japan, Guam, and Hawaii, with approximately 9,000 personnel relocated to locations outside of Japan (about 4,000 of whom are to be relocated to Guam), bringing the authorized strength of the U.S. Marine Corps forces in Guam to approximately 5,000 personnel. Meanwhile, the end-state for the U.S. Marine Corps presence in Okinawa is to be consistent with

the level of approximately 10,000 personnel envisioned in the Roadmap.

Accordingly, the “2+2” Meeting held in October 2013 agreed that, under the relocation plan described at the 2012 “2+2” Meeting, the relocation of U.S. Marine Corps units from Okinawa to Guam is to begin in the first half of the 2020s. The plan is expected to facilitate progress in implementing the consolidation plan for facilities and areas in Okinawa of April 2013.

At the “2+2” Meeting in January 2022, the governments of Japan and the United States confirmed the importance of accelerating bilateral work on force realignment efforts,

including the relocation of approximately 4,000 Marine Corps personnel from Okinawa to Guam beginning in 2024.

(2) Costs of the Relocation

Under the Roadmap, the two sides reached an agreement that, of the estimated US\$10.27 billion (in U.S. fiscal year 2008 dollars) cost of the facilities and infrastructure development costs, Japan would provide US\$6.09 billion, including US\$2.8 billion in direct cash contribution, while the United States would fund the remaining US\$4.18 billion. In February 2009, the Japanese Government and the U.S. Government signed “the Agreement Between the Government of Japan and the Government of the United States of America Concerning the Implementation of the Relocation of the III MEF Personnel and Their Dependents from Okinawa to Guam” (the Guam International Agreement). The Agreement legally guarantees and ensures actions taken by Japan and the United States for projects to which Japan provides direct cash contributions.

As part of measures based on this Agreement, the Japanese Government has been providing cash contributions to the U.S. Government in relation to the projects for which Japan has provided financial support since FY2009.⁹

Subsequently, at the “2+2” Meeting held in April 2012, the unit composition and the number of personnel to be relocated to Guam were adjusted and it was agreed that the preliminary cost estimate by the U.S. Government for the relocation was US\$8.6 billion (in U.S. FY2012 dollars). With regard to Japan’s financial commitment, it was reaffirmed that it was to be the direct cash contribution of up to US\$2.8 billion (in U.S. FY2008 dollars) as stipulated in Article 1 of the Guam International Agreement. It was also confirmed that Japan’s equity investment and loans for family housing projects and infrastructure projects would not be utilized.¹⁰

Moreover, it was stipulated that any funds that had already been provided to the U.S. Government under the Guam International Agreement would be counted as part of the Japanese contribution. Furthermore, as a new initiative, a portion of the direct cash contribution of US\$2.8 billion mentioned above would be used to develop training areas in Guam and the Commonwealth of the Northern Mariana Islands as shared-use facilities by Japan and the United States. In addition, it was agreed that the remaining costs

and any additional costs would be borne by the United States, and that the two governments were to complete a bilateral cost breakdown.

At the “2+2” Meeting in October 2013, a Protocol Amending the Guam International Agreement was also signed to add the stipulations concerning the development of training areas in Guam and the Commonwealth of the Northern Mariana Islands, and the use of these training areas by the SDF. The limit on Japanese cash contributions remains unchanged at US\$2.8 billion (in U.S. FY2008 dollars). Both countries also completed work reflecting the breakdown of the associated costs.

Furthermore, the National Defense Authorization Act for U.S. FY2015 was enacted in December 2014, which lifted the freeze on the use of funds for the relocation to Guam imposed by the U.S. Congress in U.S. FY2012.

(3) Completion of Environmental Impact Assessment Procedures

As for the environmental impact assessment for Guam, the required procedures were conducted to reflect the revisions to the project made by the adjustments to the plan for realignment, and the assessment was completed in August 2015.

Furthermore, the Commonwealth of the Northern Mariana Islands Joint Military Training Environmental Impact Statement (CJMT-EIS), is now being implemented.

(4) Progress of the Guam Relocation Project

While the environmental impact assessment for Guam was being conducted, the Government of the United States implemented infrastructure development projects at the Andersen Air Force Base and the Apra area of the Naval Base Guam as projects unaffected by the assessment. The U.S. Government is currently implementing relocation construction work in all project areas, following the lifting of the freeze on the Guam relocation funds pursuant to the National Defense Authorization Act and the completion of the environmental impact assessment for Guam.

 See Fig. III-2-4-9 (Progress of the Guam Relocation Project [image])

6 Return of Land Areas South of Kadena Air Base

The May 2006 Roadmap stated that, following the relocation to the FRF, the return of MCAS Futenma, and the transfer

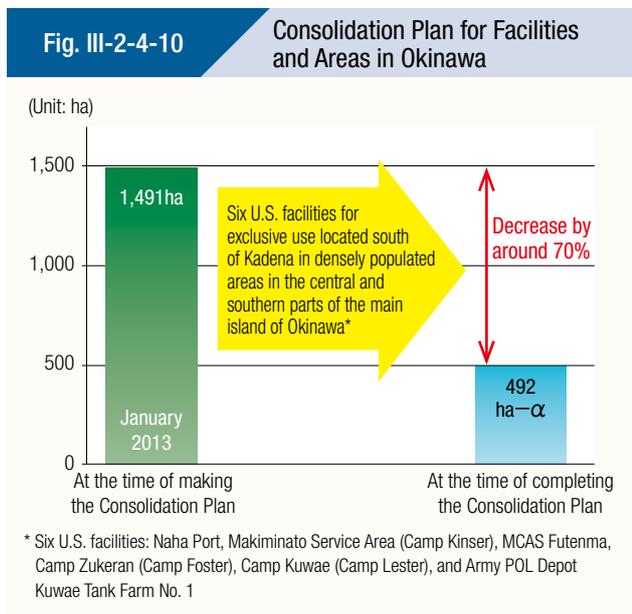
⁹ As for projects for which Japan provides financial support, cash contributions of approximately 313.6 billion yen have been provided to the U.S. side using the budgets from FY2009 to FY2021.

¹⁰ In line with this, the special provisions for the operations of the Japan Bank for International Cooperation (investment and loan) that had been prescribed by the Act on Special Measures on Smooth Implementation of the Realignment of United States Forces in Japan were abolished by an act revising part of the act that was enacted on March 31, 2017.

of III MEF personnel to Guam, the remaining facilities and areas on Okinawa will be consolidated, thereby enabling the return of significant land areas south of Kadena Air Base.

Subsequently, at the “2+2” Meeting in April 2012, it was decided to delink the progress on the relocation to the FRF from both the relocation of the III MEF personnel from Okinawa to Guam and the resulting land returns south of Kadena. In addition, with regard to the land to be returned, it was agreed to conduct consultations focusing on three categories, namely (1) land eligible for immediate return; (2) land eligible for return once the relocation of functions is completed; and (3) land eligible for return after the relocation abroad.

(1) Consolidation Plan for U.S. Facilities and Areas in Okinawa



Since the change of administration at the end of 2012, Japan and the United States have continued consultation under the basic policy to dedicate all the strength to mitigating the impact of the U.S. Forces on Okinawa communities. Japan strongly requested an early return of land areas south of Kadena, including Makiminato Service Area (Camp Kinser) in Urasoe City of which Okinawa has particularly made a strong request for the return and coordinated with the United States. As a result, both countries announced the Consolidation Plan for Facilities and Areas in Okinawa (Consolidation Plan) in April 2013, which stipulated the return schedule, including the specific years of return.

The return of all land according to the plan will enable the return of approximately 70% (approximately 1,048 ha, the equivalent of 220 Tokyo Domes) of six USFJ facilities for exclusive use¹¹ located in densely populated areas in the central and southern parts of the main island of Okinawa. In the Consolidation Plan, it is confirmed between Japan and the United States that this plan will be implemented as soon as possible, and that the government will continue to make the utmost efforts to return the land south of Kadena, at an early date.

See Fig. III-2-4-10 (Consolidation Plan for Facilities and Areas in Okinawa)

(2) Progress in the Return of Land

Since the announcement of the Consolidation Plan in April 2013, efforts have been made to return the land. At the end of March, 2020, the return of all areas that were designated as “land areas to be returned as soon as required procedures are completed” in the Consolidation Plan (shown in red in Fig. III-2-4-12) was realized. The use of returned lands is being promoted incrementally. For example, at the former

Fig. III-2-4-11 Results of the Return of Land Areas South of Kadena Air Base

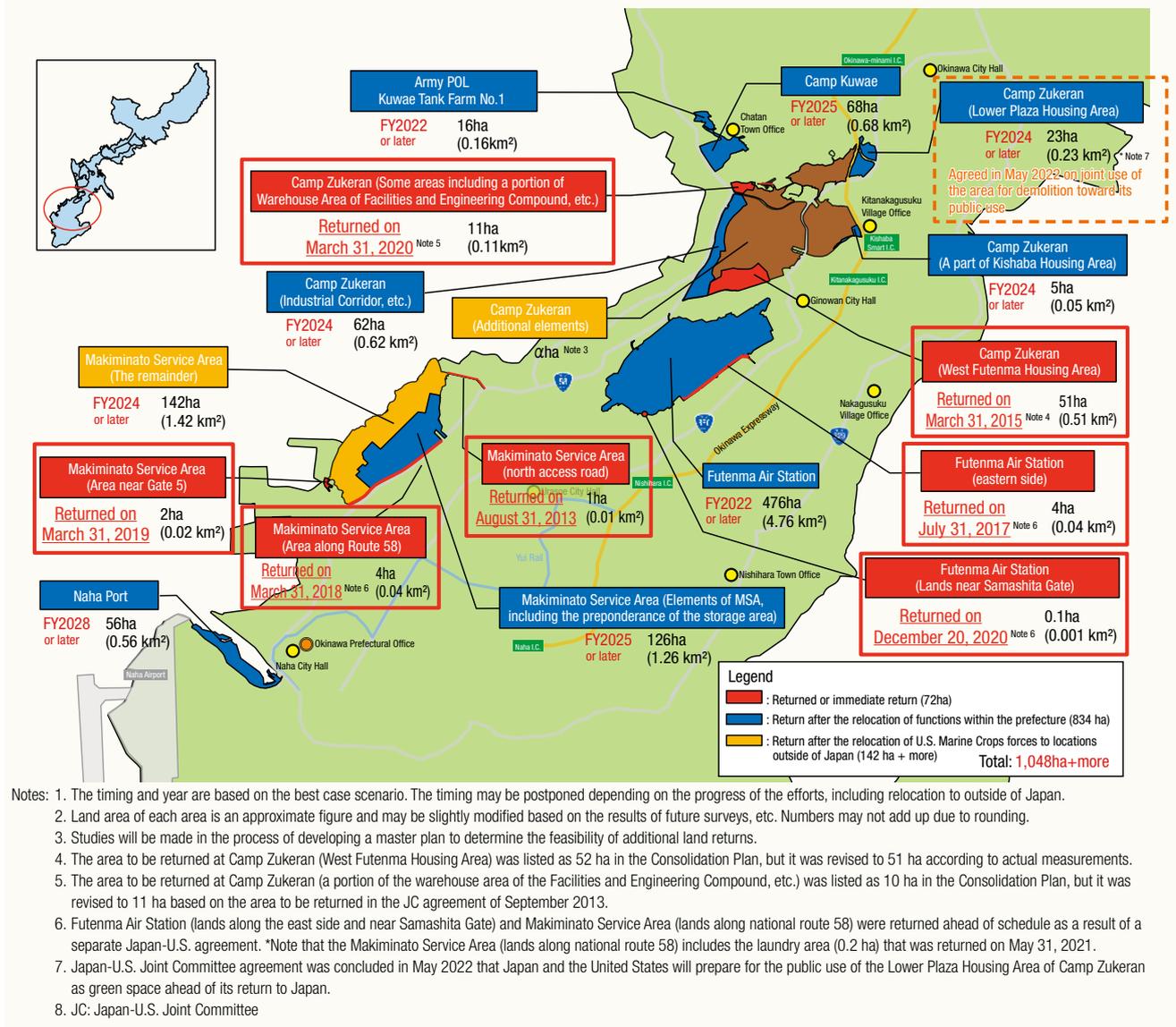
	Name	Returned	Transferred	Area
Areas eligible for immediate return in the comprehensive plan	Makiminato Service Area (entrance road on the north side)	August 2013	August 2013	Approx. 1ha
	Camp Zukeran (West Futenma Housing Area)	March 2015	March 2018	Approx. 51ha
	Makiminato Service Area (area near Gate 5)	March 2019	March 2021	Approx. 2ha
	Camp Zukeran (portions of land of Facilities and Engineering Compound)	March 2020	(*)	Approx. 11ha
Areas eligible for return after relocation of functions within Okinawa in the comprehensive plan but returned in advance as a result of a separate Japan-U.S. agreement.	Futenma Air Station (Lands along the east side)	July 2017	March 2019	Approx. 4ha
	Makiminato Service Area (Lands along national route 58)	March 2018	September 2019	Approx. 3ha
	Futenma Air Station (Lands near Samashita Gate)	December 2020	December 2020	Approx. 0.1ha
	Makiminato Service Area ((Lands along national route 58) laundry area)	May 2021	May 2021	Approx. 0.2ha

Note: The asterisk (*) on the graph refers to future transfers scheduled.

11 Naha Port, Makiminato Service Area, MCAS Futenma, Camp Zukeran, Camp Kuwae, and Army POL Depot Kuwae Tank Farm No. 1

Fig. III-2-4-12

Return of Land Areas South of Kadena Air Base [image]



site of the West Futenma Housing Area, which was returned in March 2015, the Okinawa Health Medical Center requested by the local community is being developed.

In addition, returns have been realized ahead of the schedule in the Consolidation Plan for some areas where there were strong demands for return by the local community. This has resulted, for example, in the opening of the entire stretch of Ginowan City Road 11 in March 2021 on land along the east side of MCAS Futenma, which has improved local traffic. Furthermore, in May 2022, Prime Minister Kishida visited the Lower Plaza Housing Area of Camp Zukeran and announced that Japan and the United States will agree with the public use of the site as green space ahead of its return to Japan.

All-out initiatives are being continuously made by the government to steadily implement the return of land areas

south of Kadena Air Base under the Consolidation Plan and to mitigate the impact on Okinawa in a tangible manner.

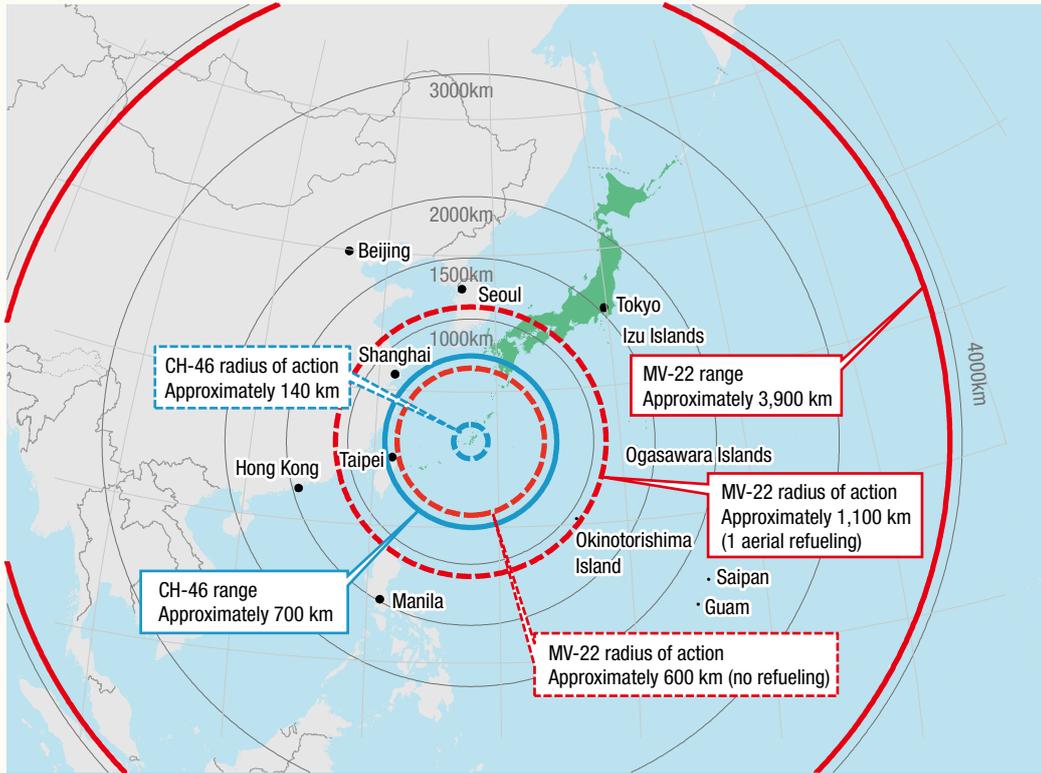
See Reference 32 (Estimated Timelines for the Return of Facilities and Areas South of Kadena)
 Fig. III-2-4-11 (Results of the Return of Land Areas South of Kadena Air Base)
 Fig. III-2-4-12 (Return of Land Areas South of Kadena Air Base [image])

7 Deployment of Osprey to Japan by the U.S. Forces

(1) Deployment of U.S. Marine Corps MV-22 Osprey to Okinawa

Osprey is an aircraft that combines the vertical takeoff/landing and hovering functions of rotary-wing aircraft and the flight speed and range of fixed-wing aircraft. As a

Fig. III-2-4-13 Usability of Osprey Aircraft [image]



■ Comparison of Basic Performance		MV-22	CH-46
Maximum speed	Approximately 520 km/h	Approximately 270 km/h	Approximately 220 km/h
Cruising speed	Approximately 490 km/h	Approximately 220 km/h	Approximately 220 km/h
Range	Approximately 3,900 km	Approximately 700 km	Approximately 700 km
Radius of action	Approximately 600 km (With 24 troops on board)	Approximately 140 km (With 12 troops on board)	Approximately 140 km (With 12 troops on board)
Number of troops carried	24	12	12
Number of crew	3-4	3-5	3-5
Cargo (inside)	Approximately 9,100 kg	Approximately 2,300 kg	Approximately 2,300 kg
Cargo (outside)	Approximately 5,700 kg	Approximately 2,300 kg	Approximately 2,300 kg
Rotor diameter	Approximately 11.6 m	Approximately 15.5 m	Approximately 15.5 m
Angle of flight	Approximately 7,500 m	Approximately 3,000 m	Approximately 3,000 m
Own weight	Approximately 16,000 kg	Approximately 7,700 kg	Approximately 7,700 kg
Measurement	MV-22 and CH-46 are not much different in size.		

primary asset of the marine air unit, the MV-22, specified for the U.S. Marine Corps, plays an important role in engaging in a broad range of activities, including transportation of personnel and supplies.

The U.S. Marine Corps planned to replace aged rotary-wing aircraft (CH-46) with MV-22s, which have superior

basic performance. In September 2013, all the 24 CH-46s deployed at MCAS Futenma were replaced by MV-22s.

The MV-22 is a highly capable aircraft compared with the CH-46; on its flight speed, payload and flight range. Its deployment to Okinawa strengthens the deterrence of the overall USFJ and greatly contributes to the peace and

Fig. III-2-4-14

Consultative Bodies on the Mitigation of Impact of Bases on Okinawa

Name (year)	Member	Purpose
Okinawa Policy Council (1996)	Entire cabinet excluding Prime Minister and Governor of Okinawa	Consultation concerning issues pertaining to USFJ facilities and areas in Okinawa and basic policies relating to Okinawa
Subcommittee of the Okinawa Policy Council (2013)	Chief Cabinet Secretary, Minister of State for Okinawa, Minister of Foreign Affairs, Minister of Defense, and Governor of Okinawa	Responses to various issues relating to the mitigation of the impact of bases on Okinawa and measures to revitalize the economy of Okinawa Prefecture
Council for Promoting the Mitigation of the Impact of MCAS Futenma on Okinawa (2014)	Chief Cabinet Secretary, Minister of State for Okinawa, Minister of Foreign Affairs, Minister of Defense, Governor of Okinawa, and Mayor of Ginowan	Consultation concerning the mitigation of the impact of Futenma Air Station
Committee for Promoting the Mitigation of the Impact of Bases on Okinawa (2014)	State Minister of Defense, Parliamentary Vice-Minister of Defense, Administrative Vice-Minister of Defense, Vice-Minister of Defense for International Affairs, Director General of Minister's Secretariat, Director General of Bureau of Defense Policy, Director General of Bureau of Defense Buildup Planning, Director General of Bureau of Policies for Regional Society, Chief of Staff of Joint Staff, Chief of Staff of GSDF, Chief of Staff of MSDF, and Chief of Staff of ASDF	Deliberation on basic policies regarding the early return of USFJ facilities and areas, and regarding the mitigation of the impact on Okinawa with the aim of smooth and effective implementation of measures based on those policies
Consultation between the Central Government and Okinawa Prefecture (2016)	Chief Cabinet Secretary, Minister of State for Okinawa, Minister of Foreign Affairs, Minister of Defense, Deputy Chief Cabinet Secretary, Governor of Okinawa, and Deputy Governor of Okinawa	Consultation concerning the mitigation of the impact of bases on Okinawa and measures to revitalize the economy of Okinawa Prefecture

stability of the region.

 See Fig. III-2-4-13 (Usability of Osprey Aircraft [image])

(2) Deployment of U.S. Air Force CV-22 Osprey to Yokota Air Base

In May 2015, the United States announced that CV-22, specified for the U.S. Air Force, would be deployed to Yokota Air Base (which encompasses Fussa City, Tachikawa City, Akishima City, Musashi Murayama City, Hamura City, and Mizuho Town of Tokyo Prefecture). The first five CV-22 Ospreys were deployed to Yokota Air Base in October 2018, followed by the sixth in July 2021. A total of 10 CV-22s are scheduled to be deployed in stages by around 2024.

The CV-22 deployed to Yokota Air Base plays a role in transporting personnel and supplies of the special operation units of the U.S. Forces to address crises and emergencies in the Asia-Pacific region, including humanitarian assistance and natural disasters.

As Japan faces an increasingly severe security environment, the deployment of high-performance CV-22 enhances the deterrence and response capabilities of the Japan-U.S. Alliance and contributes to the defense of Japan and the stability of the region from the perspective of the commitment by the U.S. to the Asia-Pacific region and the building-up of readiness by the United States.

(3) Safety of Osprey

Prior to the deployment of MV-22s to MCAS Futenma in 2012, Japan established an analysis and assessment team composed of aircraft pilots and experts from inside and outside the government and confirmed the safety of

MV-22 independently. In addition, when Japan made the decision to introduce Ospreys in 2014, the government reconfirmed their safety by collecting and analyzing all kinds of technical information, not only in the preparation phase, but also after the decision of introduction.

The MOD has dispatched the GSDF Osprey personnel to the U.S. Marine Corps' training programs since the fall of 2016. The personnel who piloted and maintained the aircraft are of the opinion that the Osprey is a reliable aircraft that allows for stable maneuvering and maintenance.

Additionally, the CV-22 has the same propulsion system as the MV-22 and both aircraft also have a basic structure in common; therefore the safety of both aircraft is at the same level.

Japan considers that ensuring safety is of prime importance in operations of the U.S. Forces, and on various occasions, the Minister of Defense requested the Secretary of Defense and other high-ranking officials to give consideration to local communities and ensure safety. The Government of Japan will continue to ask for the maximum consideration for safety.

 See Reference 33 (Chronology of Osprey Deployment by the U.S. Forces)

(4) Usability of Osprey Deployed by the U.S. Forces in Case of Disaster

In the aftermath of the devastating typhoon that hit the central part of the Philippines in November 2013, 14 MV-22 aircraft, deployed in Okinawa, were dispatched for humanitarian assistance and disaster relief activities to support Operation Damayan. The MV-22s were deployed

promptly to affected areas that were difficult to access, and transported several hundred isolated victims and about six tons of relief materials in a day. In April 2014, the MV-22, deployed in Okinawa, was dispatched for search and rescue activities in the wake of an accidental sinking of a passenger ship off the coast of Jindo in the ROK. Furthermore, in response to the large earthquake that hit Nepal in April 2015, four MV-22s deployed in Okinawa were dispatched to the country to transport personnel and supplies.

In Japan as well, when the Kumamoto Earthquake occurred in 2016, MV-22s were dispatched to deliver daily necessities to the disaster-stricken areas.

In this manner, the MV-22 is capable of conducting humanitarian assistance and disaster relief activities immediately and over a large range when large-scale disasters occur because of its high performance and multifunctionality. It has also been used for disaster prevention drills since 2014. In September 2016, two MV-22s participated in the comprehensive disaster prevention drills of Sasebo City, Nagasaki Prefecture and conducted delivery drills for isolated islands. Like the MV-22, the CV-22 can conduct humanitarian assistance and disaster relief activities, including search and rescue missions, both immediately and over a large range, in the case of a large-scale disaster.

As such, it is expected that the superior capabilities of the Osprey deployed by the U.S. Forces can be showcased in a variety of operations in the future as well.

 See Fig. III-2-4-13 (Usability of Osprey Aircraft [image])

8 Consultation Structures for Mitigating the Impact of Bases on Okinawa

In order to mitigate the concentrated impact on Okinawa,

4 Stationing of the U.S. Forces in Regions Other than Okinawa

In regions other than Okinawa, the MOD is implementing measures to secure the stable stationing of the U.S. Forces by maintaining its deterrence and trying to mitigate the impact on local communities.

1 Realignment of USFJ Facilities and Areas in Kanagawa Prefecture

With regard to the realignment of USFJ facilities and areas in Kanagawa Prefecture, etc., the return of facilities and

the Government of Japan has been committing to further mitigate the impact, listening to, for example, the opinions of the local residents through various consultative bodies.

 See Fig. III-2-4-14 (Consultative Bodies on the Mitigation of Impact of Bases on Okinawa)

9 Initiatives for the Use of Lands Previously Provided for Use by the Stationed Forces

The Act on Special Measures Concerning Promotion of Effective and Appropriate Use of the Lands in Okinawa Prefecture Previously Provided for Use by the Stationed Forces stipulates various measures concerning lands in Okinawa provided for use by the USFJ (“USFJ Land”) agreed to be returned. The MOD mainly conducts the following initiatives, and will continue its initiatives to promote the effective and appropriate use of returned lands by coordinating and cooperating with related ministries, the prefectural government and local municipalities.

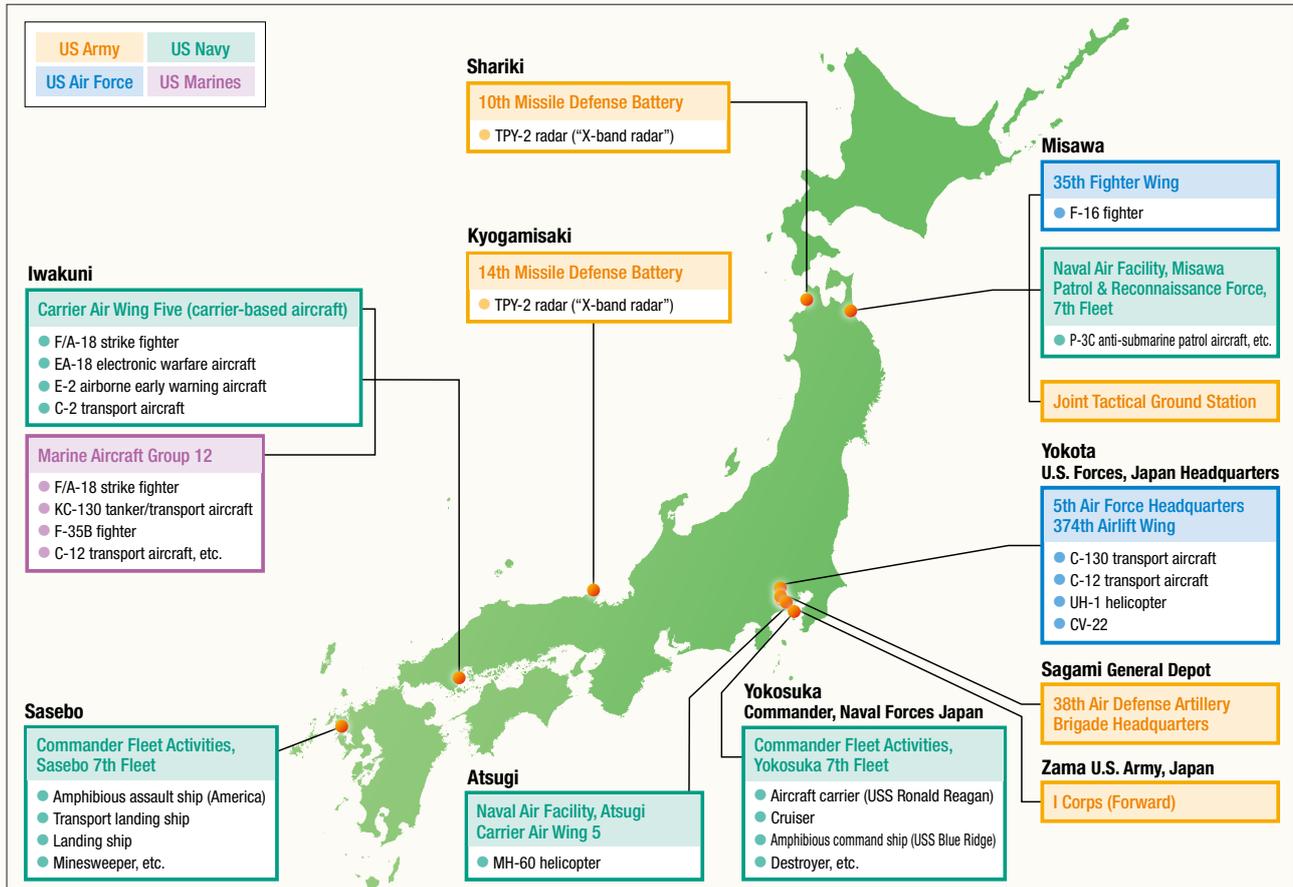
- The MOD: (1) conducts mediation in relation to access for surveys, etc., to be implemented by the prefectural government and local municipalities on the USFJ Land which are agreed to be returned;
- (2) conducts measures applying to all the returned lands to remove obstacles for use such as soil contamination and unexploded ordnance, not only those caused by the activities of the stationed forces, before handing over the land to the owners; and
- (3) provides financial benefits to alleviate the impact on the owners of the returned lands and to promote use of the land.

areas including the Kamiseya Communication Station and the Fukaya Communication Site has already been realized based on the Japan-U.S. Joint Committee agreement of October 2004.

However, more than 10 years have passed since the initial agreement, and Japan's security environment has become increasingly severe. Therefore, there have been changes in the U.S. Navy's posture and capabilities, as represented by the increased operation of U.S. vessels at Commander Fleet Activities, Yokosuka. In light of such circumstances, the following were agreed at the Japan-U.S. Joint Committee

Fig. III-2-4-15

Locations of Major U.S. Forces Stationing in Japan (Excluding Okinawa Prefecture) (As of March 31, 2021)



Note: Based on information on the U.S. Forces Japan website and other sources.

meeting in November 2018: (1) development of facilities for satisfying the U.S. Navy's facility requirements; (2) start of negotiation on joint use of the Negishi Dependent Housing Area to conduct site restoration works; and (3) cancellation of the plan to construct family housing in the Yokohama City area of the Ikego Housing Area and Navy Annex. Subsequently, joint use of the Negishi Dependent Housing Area was agreed upon at the Japan-U.S. Joint Committee meeting in November 2019.

See Fig. III-2-4-15 (Locations of Major U.S. Forces Stationing in Japan (Excluding Okinawa Prefecture) (As of March 31, 2021))
 III-2-4-16 (Realignment of USFJ Facilities and Areas in Kanagawa Prefecture [image])

2 Current Situation regarding the Realignment of the USFJ as Stipulated in the Roadmap

(1) Improvement of U.S. Army Japan Command and Control Capability

The headquarters of U.S. Army Japan (USARJ) at Camp

Zama (Sagamihara City and Zama City in Kanagawa Prefecture) was reorganized into the headquarters of the USARJ & I Corps (Forward) in December 2007. The subsequent reorganization project to improve the capabilities of the U.S. Army Headquarters in Japan is shown in Figure III-2-4-16.

The Ground Component Command HQ has set up the Japan-U.S. Joint Headquarters at Camp Zama to ensure close communication and coordination with the USARJ as well as swift response to various events.

See Fig. III-2-4-17 (Initiatives for Improvement of U.S. Army Japan Command and Control Capability and Mitigation of Impact)

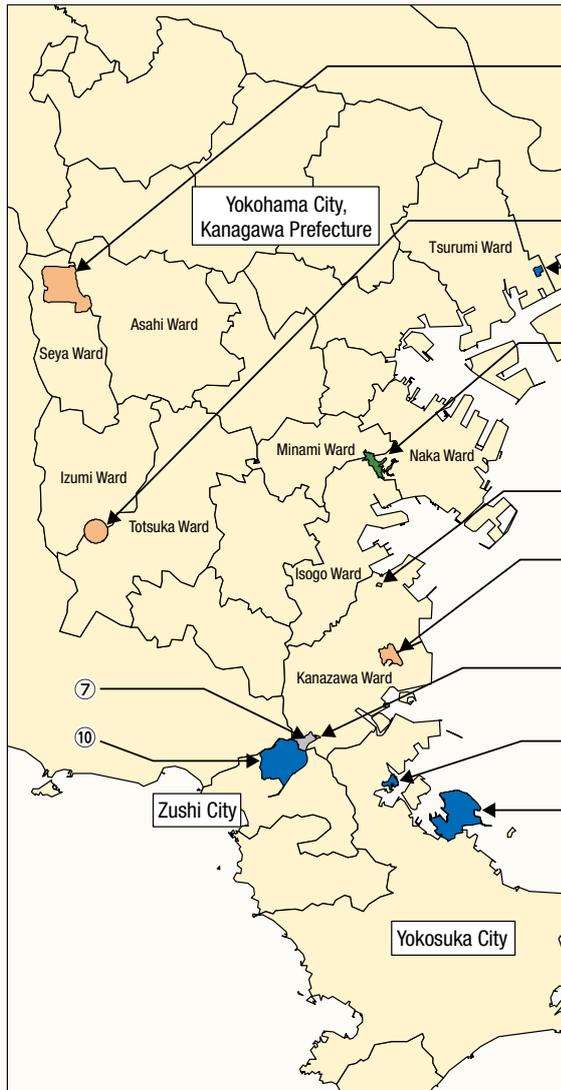
(2) Yokota Air Base and Airspace

a. Commencement of the Operation of the Bilateral Joint Operations Coordination Center (BJOCC) and the Relocation of ASDF Air Defense Command Headquarters (HQ)

Enhancement of coordination between the headquarters of both countries, combined with the transition to joint operational posture, is highly important to ensure a response with flexibility and readiness of the SDF and the

Fig. III-2-4-16

Realignment of USFJ Facilities and Areas in Kanagawa Prefecture [image]



Japan-U.S. Joint Committee agreement of October 2004

Number	Name	Location	Area (ha)	Plan for land return, etc.
①	Koshiba POL Depot	Kanazawa Ward, Yokohama City	Approx. 53 ha	Returned in December, 2005
②	Tomioka Storage Area	Kanazawa Ward, Yokohama City	Approx. 3 ha	Returned in May, 2009
③	Fukaya Communication Site	Izumi Ward, Yokohama City	Approx. 77 ha	Returned in June, 2014
④	Kamiseya Communication Station	Seya Ward and Asahi Ward, Yokohama City	Approx. 242 ha	Returned in June, 2015
⑤	Negishi Dependent Housing Area	Naka Ward, Minami Ward and Isogo Ward, Yokohama City	Approx. 43 ha	To be returned when the construction of family housing etc. is completed at Ikego Housing Area and Navy Annex
⑥	Detached part of Ikego Housing Area and Navy Annex	Kanazawa Ward, Yokohama City	Approx. 1 ha	Return procedures to begin upon completion of the current use
⑦	Ikego Housing Area and Navy Annex	Yokohama City Area	—	Construction of family housing, etc.

①-④ : Returned

Japan-U.S. Joint Committee agreement of November 2018

[Development of facilities]

Number	Name	Location	Details
⑧	Commander Fleet Activities, Yokosuka	Yokosuka City	Bachelor enlisted quarters
⑨	Urago Storage Area	Yokosuka City	A wharf
⑩	Ikego Housing Area and Navy Annex	Zushi City Area	Living support facilities, fitness center, maintenance shop and fire station
⑪	Tsurumi POL Depot	Tsurumi Ward, Yokohama City	A fire station

[Joint use and return]

Number	Name	Location	Area	Details
⑤	Negishi Dependent Housing Area	Naka Ward, Minami Ward and Isogo Ward, Yokohama City	Approx. 43 ha	A Japan-US consultation concerning joint use of the Negishi Dependent Housing Area will commence with the aim of promptly carrying out site restoration work. Consultation on the specific return date will be held between the two governments depending on the progress of the site restoration work.

[Cancellation of construction]

Number	Name	Location	Details
⑦	Ikego Housing Area and Navy Annex	Yokohama City Area	Cancellation of construction of family housing, etc.

U.S. Forces. Therefore, at the end of FY2011, the BJOCC commenced its operations at Yokota Air Base and the Air Defense Command HQ¹² and its relevant units were relocated to Yokota Air Base. These arrangements have made it possible to enhance coordination between the headquarters of the SDF and the U.S. Forces, including the

sharing of information concerning air defense and BMD.

b. Yokota Airspace

To facilitate the operations of civilian aircraft in Yokota airspace, where the U.S. Forces conduct radar approach control, measures have been taken since 2006 to temporarily transfer the responsibility for air traffic control of portions

¹² The BJOCC functions to contribute to providing a joint response for Japan's defense. To that end, it works to enhance information sharing, close coordination, and interoperability between the Japanese and U.S. headquarters.

Fig. III-2-4-17

Initiatives for Improvement of U.S. Army Japan Command and Control Capability and Mitigation of Impact

Time	Improvement
December 2007	Reorganized into the headquarters of the USARJ&I Corps (Forward) at Camp Zama
June 2008	Agreed on the partial return of land (approximately 17 ha) at Sagami General Depot
September 2008	Reorganization of the headquarters of the USARJ&I Corps (Forward)
August 2011	The operation of the Mission Command Training Center commenced
October 2011	Agreed on the partial return of land (approximately 5.4 ha) at Camp Zama
June 2012	Agreed on the shared use of a portion of land at Sagami General Depot (approximately 35 ha) with Sagami City
March 2013	The GSDF Central Readiness Force Headquarters was relocated from GSDF Asaka Camp to Camp Zama
September 2014	Partial return of land (approximately 17 ha) at Sagami General Depot
December 2015	The shared use of a portion of land at Sagami General Depot (approximately 35 ha) commenced
February 2016	Partial return of land (approximately 5.4 ha) at Camp Zama

Fig. III-2-4-18

Overview of and Measures Related to Naval Air Facility Atsugi and MCAS Iwakuni

Measure	Overview
Relocation of Carrier Air Wing Five (CVW-5) squadrons from Naval Air Facility Atsugi to MCAS Iwakuni	<ul style="list-style-type: none"> ○ After explanation in January 2017 to Yamaguchi Prefecture, Iwakuni City, and other municipalities that the relocation of carrier-based aircraft to MCAS Iwakuni would commence in the latter half of 2017, etc., Yamaguchi Prefecture, Iwakuni City, and other municipalities expressed their approval by June 2017. ○ Started relocation in August 2017. ○ Completed relocation in March 2018.
Relocation of MSDF EP-3, etc., from MCAS Iwakuni to Naval Air Facility Atsugi	Following bilateral consultations upon request from the local community and from the perspective of the defense system, Japan and the United States confirmed in 2013 that EP-3 aircraft will remain at MCAS Iwakuni.
Relocation of the KC-130 air refueling aircraft from MCAS Futenma to MCAS Iwakuni	Relocation completed in August 2014.
Rotational deployment of the KC-130 to Kanoya Air Base and Guam	<ul style="list-style-type: none"> ○ Rotational deployment of the KC-130 to MSDF Kanoya Air Base (Kanoya City, Kagoshima Prefecture) started in September 2019. ○ Regarding rotational deployment to Guam, training commencement confirmed.
Relocation of CH-53D helicopters from MCAS Iwakuni to Guam	Japan and the United States confirmed that CH-53D helicopters, which had been sent to the Middle East, will return to the U.S. mainland without returning to MCAS Iwakuni, and will then be relocated to Guam.

of Yokota airspace to Japanese authorities, to deploy ASDF officers at the Yokota Radar Approach Control (Yokota RAPCON), and to reduce the airspace by about 40% (i.e., the release of air traffic control from USFJ).

c. Civilian-Military Dual Use of Yokota Air Base

At the Japan-U.S. summit meeting held in May 2003, it was agreed that the joint civilian-military use of Yokota Air Base would be studied, and a Liaison Conference was then established as a working panel attended by relevant government ministries and agencies and the Tokyo Metropolitan Government. The governments of Japan and the United States are also conducting a study on the specific conditions and modalities, with the understanding that both countries will not compromise the military operations and safety of Yokota Air Base.

(3) Deployment of U.S. Aircraft Carrier to Commander Fleet Activities, Yokosuka

The presence of the U.S. Pacific Fleet plays an important role in ensuring maritime security in the Indo-Pacific

region as well as regional peace and stability. The U.S. aircraft carrier provides the core capability of the Fleet.

The U.S. Navy affirms that it will continue to ensure that all of its forward-deployed nuclear-powered vessels, including USS “Ronald Reagan,”¹³ which anchored at Commander Fleet Activities, Yokosuka (Yokosuka City, Kanagawa Prefecture), adhere to the relevant safety policies. For example, the nuclear reactor will normally be shut down while the aircraft carrier is anchored, and repairing and refueling will not be carried out in Japan. The Government of Japan will continue taking all possible measures to ensure safety.

(4) Measures Relating to Naval Air Facility Atsugi and MCAS Iwakuni

a. Relocation of Carrier-Based Aircraft

Since Naval Air Facility Atsugi (Ayase City and Yamato City in Kanagawa Prefecture) is located in an urban district, the noise of carrier jets taking off and landing in particular had been a problem for a long time.

¹³ Nuclear-powered aircraft carriers do not need to replenish their fuel and they are able to maintain the high speeds necessary for the operation of aircraft, giving them excellent combat and operational capabilities.

Thus, after the completion of the runway relocation project¹⁴ at MCAS Iwakuni (Iwakuni City, Yamaguchi Prefecture), which made aircraft operations possible with less impact on the living environment of the surrounding communities, it was decided that CVW-5 squadrons would be relocated from Naval Air Facility Atsugi to MCAS Iwakuni. The relocation began in August 2017 and completed in March 2018. As a result, the noise in areas around Naval Air Facility Atsugi was alleviated to a significant extent, while maintaining the forward deployment of a U.S. aircraft carrier and carrier-based aircraft.

In order to mitigate impacts of the increased operations at MCAS Iwakuni due to the relocation, the related measures listed in Fig. III-2-4-18 have been implemented. If all of these measures are fully implemented, the noise problems are expected to be mitigated from the current situation, with the area requiring residential noise-abatement work, or the so-called first category area, decreasing from approximately 1,600 ha to approximately 650 ha.

 **See** Fig. III-2-4-18 (Overview of and Measures Related to Naval Air Facility Atsugi and MCAS Iwakuni)

b. Field-Carrier Landing Practice (FCLP)

The May 2006 Roadmap prescribes that a bilateral framework to conduct a study on a permanent FCLP facility is to be established with the goal of selecting a permanent site at the earliest possible date. Since December 2019, the MOD has acquired approximately 90% of the land on Mageshima, Nishinoomote City, Kagoshima Prefecture, and has been explaining the development of facilities to the local communities in preparation for it. In February 2021, the MOD began the procedures for the environmental impact assessment to prepare for the development of facilities.

The FY2022 budget includes funds for facility development of the runways and parking apron on Mageshima. The United States also welcomed the Government of Japan's decision in its FY 2022 draft budget to develop SDF facilities on Mageshima in the joint statement of the SCC issued in January 2022. A new phase has been reached as the fact that the MOD received requests from the mayors of Nishinoomote City, Nakatane Town, and Minamitane Town on Tanegashima Island regarding the development of facilities on Mageshima in February 2022 indicates. The MOD has been holding a series of discussions with the local communities on the development of facilities, and has established a "Discussion

Forum" with Nishinoomote City. In April, Minister of Defense Kishi visited Mageshima, marking the first visit by a Minister of Defense.

c. Resumption of Civil Aviation Operations at MCAS Iwakuni

Considering that the local public entities, etc., including Yamaguchi Prefecture and Iwakuni City, had been working together to request the resumption of civil aviation operations, it was agreed in the Roadmap that "portions of the future civilian air facility will be accommodated at MCAS Iwakuni." Based on this agreement, Iwakuni Kintaiyoko Airport was opened in December 2012, resuming regular flights of civil aviation aircraft for the first time in 48 years.

(5) Ballistic Missile Defense (BMD)

In June 2006, an AN/TPY-2 radar (so-called "X-Band Radar") system was deployed to the U.S. Shariki Communication Site (Tsugaru City in Aomori Prefecture).¹⁵ Also in October 2006, U.S. Army Patriot PAC-3 units (Patriot Advanced Capability) were deployed to Kadena Air Base (Kadena Town, Okinawa City and Chatan Town in Okinawa Prefecture) and Kadena Ammunition Storage Area (Yomitan Village, Okinawa City, Kadena Town, Onna Village and Uruma City in Okinawa Prefecture). In December 2014, the second AN/TPY-2 radar in Japan was deployed to the U.S. Kyogamisaki Communication Site (Kyotango City in Kyoto Prefecture).

 **See** Chapter 1, Section 2-2-1 (Japan's Comprehensive Air and Missile Defense Capability)

(6) Training Relocation

a. Aviation Training Relocation (ATR)

Based on the decision that U.S. aircraft from three USFJ facilities and areas-Kadena, Misawa (Misawa City and Tohoku Town, Aomori Prefecture) and MCAS Iwakuni-would participate for the time being in bilateral training at SDF facilities, the Aviation Training Relocation (ATR)¹⁶ has been underway since 2007. The MOD has been improving its infrastructure, as required, for the training relocation.

The ATR contributes to enhancing interoperability between the two countries, and also to relocating part of air-to-ground training conducted by using Kadena Air Base. Thus, this training relocation will help noise abatement around Kadena Air Base, thereby contributing to the mitigation of the impact on Okinawa.

¹⁴ A project to relocate the runway of MCAS Iwakuni by approximately 1,000 m to the east (offshore), in response to the requests from Iwakuni City, etc.

¹⁵ The radar was deployed to ASDF Shariki Sub Base (in Aomori Prefecture) in June 2006, but was thereafter transferred to the neighboring U.S. Shariki Communication Site.

¹⁶ USFJ aircraft conduct bilateral and other training at SDF facilities, etc.

In addition to assisting the USFJ, the MOD/SDF is making efforts to conduct training relocation smoothly by establishment of a liaison office, facilitating communication with related government agencies, and response to requirements from the local community so that safety and security of local communities can be ensured.

 See Fig. III-2-4-19 (Overview of the Background to the Aviation Training Relocation)

Fig. III-2-4-19 Overview of the Background to the Aviation Training Relocation	
Time of reaching agreements	Overview
May 2006	In the “Japan-U.S. Roadmap for Realignment Implementation,” it is conformed that U.S. aircraft from three USFJ facilities and areas—Kadena, Misawa and MCAS Iwakuni—would participate in bilateral training with the SDF at SDF facilities in Chitose, Misawa, Hyakuri, Komatsu, Tsuiki, and Nyutabaru.
January and October 2011	At the Joint Committee, both governments agreed to include Guam as a new training relocation site and to expand the scale of training.
March 2014	At the Joint Committee, both governments agreed to add air-to-ground training using the Misawa Air-to-Ground Range (Misawa City and Rokkasho Village in Aomori Prefecture).

b. Training Relocation for MV-22

The Government of Japan and the United States Government decided in the “2+2” Joint Statement of October 2013, to utilize the opportunities to participate in various operations in mainland Japan and across the region to reduce the amount of time that MV-22s are deployed and used for the training in Okinawa so

that training outside of Okinawa Prefecture, including mainland Japan, can be increased while maintaining the deterrence of the Alliance. Based on the above, both governments have been moving forward with the training of the MV-22 deployed at MCAS Futenma outside of Okinawa Prefecture, etc.

In September 2016, it was agreed at the Joint Committee to relocate the training activities of Tilt-Rotor/Rotary Wing aircraft, such as AH-1, CH53, and the MV-22 that are currently deployed at MCAS Futenma out of Okinawa Prefecture at Japan’s expense in order to further promote training outside of Okinawa to mitigate the impact of training activities there.

In FY2021, Japan-U.S. bilateral training was conducted at training sites in Aomori Prefecture in July 2021, in Hokkaido, Aomori, Miyagi, Iwate, and Kanagawa prefectures in December 2021, and in Shizuoka and Kanagawa prefectures in March 2022. From the date of the agreement up to March 2022, a total of 15 training, in addition to the ones mentioned above, have been conducted in Guam and in Japan at the training sites in Gunma, Niigata, Shiga, Kagawa, Kumamoto, Oita, Miyazaki, and Kagoshima prefectures.

The MV-22’s amount of time deployed and training in Okinawa will continue to be reduced by relocating to exercises held in mainland of Japan and Guam etc., and the government will continue to promote initiatives that contribute to further mitigating the impact on Okinawa.

5 Initiatives for Smooth Implementation of the Realignment of the USFJ

In order to smoothly implement the realignment of the USFJ based on the May 2006 Roadmap, the Act on Special Measures on Smooth Implementation of the Realignment of United States Forces in Japan (USFJ Realignment Special Measures Act) was enacted in August 2007. Realignment grants, Special Subsidy Rates for Public Projects, etc., and other systems were established based on the law.

In addition, under the U.S. Forces realignment, some USFJ facilities and areas will be returned, and the U.S. Marine Corps in Okinawa will be relocated to Guam. Since these developments may affect the employment of USFJ

employees, the Government of Japan will take measures to include education and skills training, which is to help retain their employment.

The Realignment Special Measures Act was supposed to cease to be effective as of March 31, 2017. However, since there remain realignment projects that require implementation, on March 31, 2017, an act revising part of the Act including a 10-year extension of the time limit of the Act to March 31, 2027 was enacted.

 See Reference 34 (Outline of the Act on Special Measures on Smooth Implementation of the Realignment of United States Forces in Japan)

In situations where the need and potential for international cooperation in the security and defense areas are increasing unprecedentedly, the Ministry of Defense (the MOD)/Self-Defense Forces (the SDF) is required to actively contribute to ensuring the security of Japan, the peace and stability of the region, and the peace, stability, and prosperity of the entire international community.

In line with the vision of a “Free and Open Indo-Pacific” (FOIP)¹ and in accordance with the National Defense Program Guidelines (NDPG), Japan will strategically promote bilateral and multilateral defense cooperation and exchanges as part of multi-faceted and multi-layered security cooperation, while paying attention to regional characteristics and partner

countries’ situations.

Japan will also more actively advance its efforts to solve global security issues, including securing the freedom and safety of maritime navigation and overflight, coordination and cooperation with relevant countries in relation to the use of the space and cyber domains, international peace cooperation activities, arms control and disarmament, and non-proliferation of weapons of mass destruction.

These efforts will be promoted mainly under the framework of the Japan-U.S. Alliance and in close coordination with countries that share the same universal values and security interests as Japan. The MOD/SDF further intends to create a desirable security environment for Japan by engaging in routine activities.

Section 1

Strategic Promotion of Multi-Faceted and Multi-Layered Defense Cooperation

1

Significance and Evolution of Security Cooperation and Dialogue, and Defense Cooperation and Exchanges, etc.

1 Significance and Evolution of Security Cooperation and Dialogue, and Defense Cooperation and Exchanges

(1) Significance of Security Cooperation and Dialogue, and Defense Cooperation and Exchanges

The peace and stability of the Indo-Pacific region is closely related to Japan’s security. In addition, with increasingly changeable and complicated global power dynamics, and escalation of political, economic, and military inter-state competition, they are also becoming a more important issue for the international community.

While nations with largescale military power concentrate in the region, no framework for regional security cooperation has been sufficiently institutionalized. As political, economic and social systems in each nation

widely differ in the region, visions of security vary from country to country. Furthermore, there has been an increasing number of unilateral actions attempting to change the status quo by coercion without paying respect to existing international law.

The issues involving the South China Sea, in particular, cause concerns over the maintenance of the rule of law at sea, freedom of navigation and overflight, and the stability of the Southeast Asian region.

Thus, responses to these issues have become an important challenge to ensure the regional stability. Taking into account the international situation, regional characteristics, and situations and security issues that other nations face, the MOD/SDF intends to strategically promote multi-faceted and multi-layered security cooperation, so that each country can build mutual trust and work together to solve regional security issues.

¹ In his keynote speech at the Fourth Tokyo International Conference on African Development (TICAD IV) held in Kenya in August 2016, then Prime Minister Abe referred to the concept of FOIP. In the Japan-U.S. summit meeting in November 2017, the United States expressed its support for this concept presented by Japan. The leaders of the two countries urged all nations to respect the freedom of navigation and flight, and the rule of law at sea, and agreed to build multi-layered relationships with countries that support this approach.

(2) Forms and History of Security Cooperation and Dialogue, and Defense Cooperation and Exchanges

Defense cooperation and exchanges have been delivered in the forms of high-level dialogues and exchanges; bilateral/multilateral training and exercises; capacity building, in which human resource development and technical support are provided to other countries in the fields of security and defense; and defense equipment and technology cooperation, which is conducted in order to promote Japan's security, contribute to peace, and promote international cooperation.

The MOD/SDF has long strived to alleviate any feelings of confrontation and tension, and to foster a collaborative and cooperative atmosphere by building face-to-face relationships through bilateral dialogues and exchanges. In addition, the MOD/SDF has recently enhanced bilateral defense relationships from traditional exchanges to deeper cooperation in a phased manner by appropriately combining various means, including bilateral/multilateral training and exercises, capacity building, defense equipment and technology cooperation, and the development of institutional frameworks such as the Acquisition and Cross-Servicing Agreements (ACSA).

In addition, multilateral regional security cooperation and dialogue are in the process of evolving from those that focus on dialogue to those that focus on cooperation that seeks to build regional order. It is important to promote bilateral and multilateral defense cooperation and exchanges in a multilayered, practical manner in order to create an ideal security environment.

Due to the spread of COVID-19, the MOD has continued to utilize telephone conversations and video teleconferences, as it did the previous year, to deepen communication with foreign countries and strategically promote defense cooperation and exchanges even from the government office in Ichigaya, Tokyo.

See Reference 35 (Situations Concerning the Conclusion of Agreements)
Reference 36 (Exchange Student Acceptance Record (Number of Newly Accepted Students in FY2021))
Fig. III-3-1-1 (Defense Cooperation and Exchanges)
Fig. III-3-1-2 (Number of High-level Bilateral Dialogues and Consultations (April 2021-March 2022))

2 Efforts under the Vision of a “Free and Open Indo-Pacific” (FOIP)

(1) Characteristics of the Indo-Pacific Region

Free and open maritime order, which relies on the rule of law, is the foundation for the stability and prosperity of the international community. The Indo-Pacific region is at the core of the world vitality, and home to half the world's population. It is important to establish this region as the free and open global commons to ensure the peace and prosperity of the entire region.

On the other hand, a range of challenges exist for upholding and reinforcing Free and Open Indo-Pacific (FOIP), such as a rapid modernization of military forces and intensified military activities by some countries in this region including in Japan's vicinity.

(2) Direction of the MOD's Initiatives

Given this situation, the MOD/SDF is, for example, promoting defense cooperation and exchanges to ensure that Japan can secure the stable use of major sea lanes. In addition, the MOD/SDF is promoting mutual understanding and confidence building with countries that modernize their military forces and intensify their military activities to prevent contingencies and ensure Japan's security. Furthermore, for countries in the region that are taking steps to respond to changes in the environment, the MOD/SDF is trying to contribute to regional peace and stability by supporting their efforts through defense cooperation and exchanges.

(3) Areas with Which Japan Will Enhance Cooperation to Uphold and Reinforce FOIP

With respect to Southeast Asia, South Asia, the Pacific Island countries, the Middle East, Africa, and Latin American countries, the MOD/SDF will enhance cooperation to uphold and reinforce FOIP, utilizing a wide range of means for defense cooperation and exchanges, including cooperation and exchange of personnel, cooperation and exchange of troops, bilateral/multilateral training, capacity building supports, and defense equipment and technology cooperation.

Specifically, the MOD/SDF is promoting defense cooperation and exchanges to help countries in these regions to play more effective roles in achieving stability in the Indo-Pacific region, and to secure the stable use of sea lanes by establishing good relations with these countries and ensuring that the SDF has stable access to

Fig. III-3-1-1 Defense Cooperation and Exchanges

Defense cooperation and exchanges

"Defense cooperation and exchanges" refers to efforts to strengthen bilateral and multilateral defense relations by using various tools, which are **significant initiatives for securing the peace and stability of Japan and the international community.**

Purpose of defense cooperation and exchanges

- To create a security environment desirable for Japan
- To deter threats from reaching Japan by making opponents realize that doing harm to Japan would be difficult and consequential
- To prevent contingencies through promoting confidence-building and mutual understanding

Tools for defense cooperation and exchanges

Tool 1: Cooperation and exchanges among people

On such occasions as the "2+2" Meeting, defense ministerial meetings, chief of staff-level meetings or other high-level meetings, working-level consultations among defense authorities, and multilateral international conferences, participants frankly exchange views on defense policies, regional situations, defense cooperation and exchanges, etc., thereby developing mutual understanding and building confidence among them and further promoting defense cooperation and exchanges thereafter. Exchanges of students and interchange in education and research aim to facilitate understanding of defense policies and statuses of military units of other countries and promote relations of trust through network building.



The Japan-Vietnam Defense Ministerial Meeting



Australian Chief of Army Burr's visit to Japan



Japan Pacific Islands Defense Dialogue (JPIDD)



Acceptance of foreign students at the National Defense Academy

Tool 2: Cooperation and exchanges among troops

The SDF develops mutual trust with partner countries and promotes cooperative relationships through goodwill exercise, mutual visits of naval ships and aircrafts (calling at ports and airports), and exchange events among units. The SDF will enhance skills of each unit and strengthen the nation-to-nation defense relationships through promoting cooperative ability with foreign troops in joint training and exercises.



Japan-Palau Goodwill Exercise by the MSDF IPD21 units



Japan-U.S.-India-Australia Multilateral Exercise (Malabar 2021)



Japan-U.S.-Australia Multilateral Exercise (Cope North 22)



Japan-U.K.-U.S.-Netherlands-Canada Multilateral Exercise (Pacific Crown 21)

Tool 3: Capacity building

Capacity building project by holding seminars and field training in various fields, providing technical guidance, and organizing observation of education and training programs and opinion exchanges, etc., aims to improve the capabilities of partner countries in a concrete and steady manner over a certain period of time and help their military forces play roles in contributing to international peace and regional stability.



PKO dispatch cooperation (Vietnam)



Military band training (Papua New Guinea)



HA/DR online seminar (ASEAN)



Underwater medicine online seminar (Vietnam)

Tool 4: Defense equipment and technology cooperation

Through overseas transfers of equipment, joint research and development, participation in international exhibitions, and holding Defense Industry Forums, efforts are made to strengthen and maintain Japan's defense industrial bases, enhance capacity both of the SDF and military forces of partner countries, and strengthen and maintain defense cooperation with those partner countries.



International Paris Air Show



Picture of the Japan-India Defense Industry Forum



ASDF C-2 transport aircraft participating in the Dubai Airshow 2021



Minister of Defense and Ambassador of the Philippines in Tokyo confirming the conclusion of the contract regarding air surveillance radar systems

(Reference) Conclusion of various defense cooperation agreements

Through conclusion of agreements such as Reciprocal Access Agreement, Agreements concerning the Transfer of Defense Equipment and Technology, Acquisition and Cross-Servicing Agreements, Information Security Agreements, the framework of cooperation has been materialized and institutionalized with the aim of promoting defense cooperation and exchanges more smoothly and consistently.



Signing of Japan-Australia Reciprocal Access Agreement (Prime Minister's Office)



Signing of the Agreement between Japan and Vietnam concerning the Transfer of Defense Equipment and Technology



Signing of the Japan-India ACSA (MOFA)



Signing of the Japan-Germany Agreement on the Security of Information (MOFA)

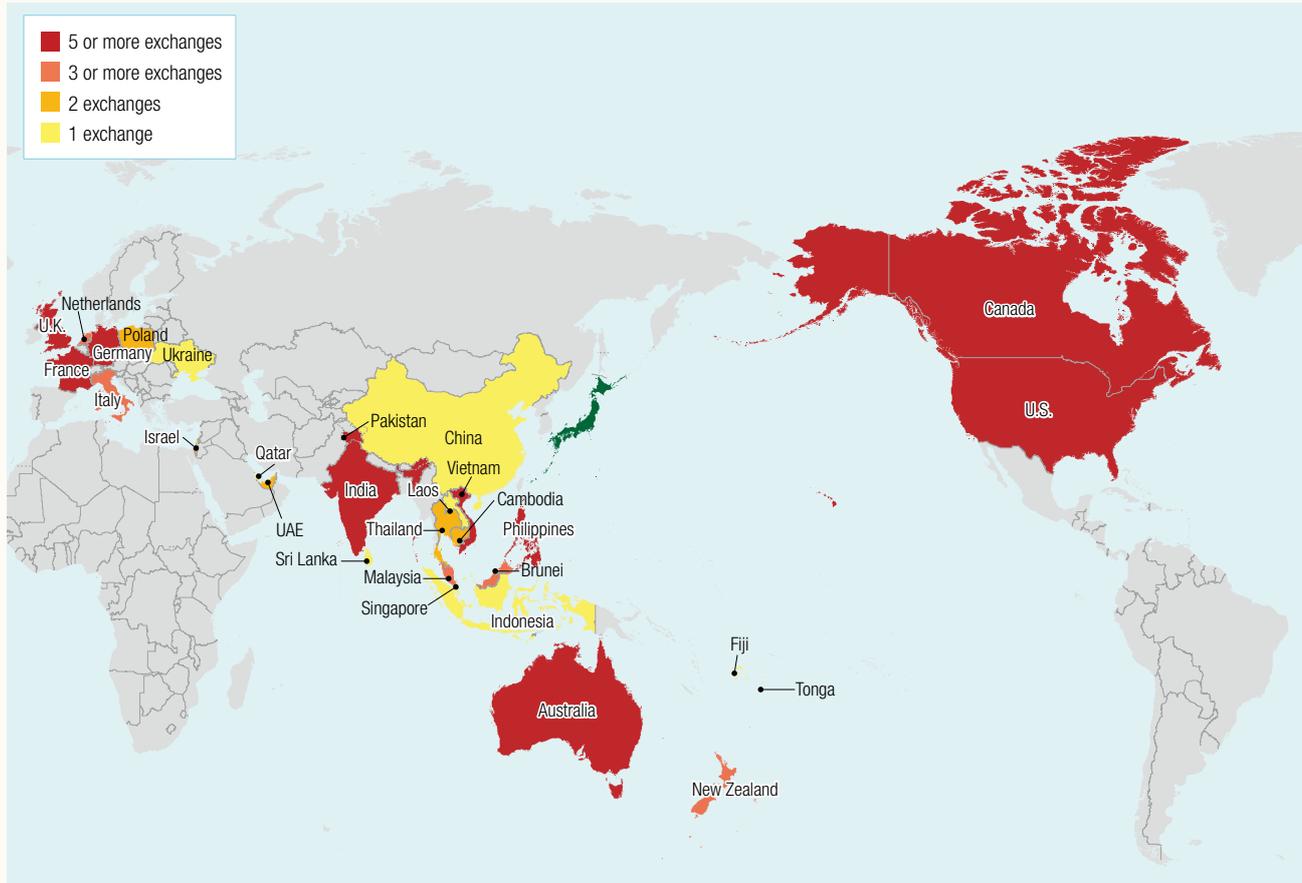
Fig. III-3-1-2

Number of High-level Bilateral Dialogues and Consultations (April 2021-March 2022)

Countries with Which High-level Bilateral Dialogues and Consultations were Conducted (April 2021-March 2022)

In this figure, "high-level bilateral dialogues and consultations" refers to bilateral meetings of the Minister of Defense, State Minister of Defense, Parliamentary Vice-Minister of Defense, Administrative Vice-Minister of Defense, Vice-Minister of Defense for International Affairs, and Chiefs of Staff with their respective counterparts.

High-level bilateral dialogues and consultations were conducted with the following countries between April 2021 and March 2022, but had also been conducted with other countries prior to that period together with other types of defense cooperation and exchanges. It should be noted that Japan has conducted high-level bilateral dialogues and consultations with various countries across the globe.



their ports and airports.

(4) Countries with Which Japan Works to Uphold and Reinforce FOIP

Japan's allies, such as the United States, Australia, and India, as well as the United Kingdom, France, Germany, and other European countries, Canada, and New Zealand, are countries that not only share fundamental values with Japan, but also have geographic and historical ties to the Indo-Pacific region.

The MOD/SDF has been encouraging these countries to become more involved in the Indo-Pacific region. At the same time, the MOD/SDF has also been promoting defense cooperation and exchanges with them so that we can work together as partners when promoting efforts for upholding and reinforcing FOIP in the areas listed in (3) above. This way, we aim to achieve stronger effects

than when promoting efforts on our own.

(5) Expansion of FOIP

As Japan promotes defense cooperation and exchanges based on its vision of FOIP, the United States, Australia, ASEAN, India, European countries such as the United Kingdom, France, Germany, Netherlands, and Italy, as well as EU have their own initiatives and visions in the Indo-Pacific region, which are consistent with our vision of FOIP. Japan's vision of FOIP is inclusive and the MOD/SDF will continue to promote cooperation with all countries that endorse it.

(6) Countries with Which Japan Will Promote Mutual Understanding and Confidence Building

With regard to China, the MOD/SDF aims to avoid unforeseen events and ensure Japan's security by tapping

into defense exchange opportunities and conveying Japan's concerns about the increased military activities and military expansion in Japan's vicinity to promote mutual understanding and confidence building.

(7) Strengthen the Organizational Structure to Promote FOIP

As efforts related to security cooperation with other countries have expanded rapidly, a new post for civilian officials at the level of a division director was established in the Bureau of Defense Policy in July 2020 to conduct defense cooperation and exchanges with other countries under a medium- to long-term sustainable system. The

new position shares duties relating to “contributing to the stability of the security environment in the Indo-Pacific region,” which were part of the “duties relating to the fundamentals and coordination of international exchanges in the field of defense” that had been under the jurisdiction of the former International Policy Division of the Bureau.

The MOD decided that it would promote multifaceted and multi-layered security cooperation more strategically based on the vision of FOIP under this strengthened structure.

 See Fig. III-3-1-3 (The MOD's Efforts for the Vision of “Free and Open Indo-Pacific” [image])

2 Promotion of Defense Cooperation and Exchanges

In promoting security cooperation and exchanges, it is important to enhance bilateral defense cooperation and exchanges using optimal combinations of various cooperative means, while taking matters such as regional situations, the situations of partner countries and their relationships with Japan into account.

1 Australia

(1) Significance of Defense Cooperation and Exchanges with Australia

Australia is a “Special Strategic Partner” for Japan in the Indo-Pacific region as both Japan and Australia are allied with the United States and share not only universal values² but also security strategic stakes and interests.

Given that defense cooperation between Japan and Australia has deepened, the two countries, in March



Minister of Defense Kishi holding the “2+2” video teleconference with the Minister for Defence of Australia



GSD Chief of Staff Yoshida holding a conference with the Australian Chief of Army

² The National Security Strategy stipulates “freedom, democracy, respect for fundamental human rights, and the rule of law” as universal values.

Fig. III-3-1-3

The MOD's Efforts for the Vision of "Free and Open Indo-Pacific" [image]

MOD's Efforts for the vision of "Free and Open Indo-Pacific" (FOIP)

Background

- In August 2016, then Prime Minister Abe unveiled the "Free and Open Indo-Pacific" concept in his keynote address at TICAD VI in Kenya.
- Japan's fundamental aim is to foster regional stability and prosperity by improving connectivity between Asia and Africa through a free and open Indo-Pacific region.

Basic concept of the "Free and Open Indo-Pacific" vision

- The Indo-Pacific region is the core of the world's vitality, and home to half the world's population. Achieving stable and autonomous development in the region is essential for global stability and prosperity.
- The "Free and Open Indo-Pacific" vision aims to promote free and lively socioeconomic activity throughout the Indo-Pacific region and to achieve prosperity in the entire region.

Three pillars of the "Free and Open Indo-Pacific"

- Promotion and establishment of the rule of law, freedom of navigation and free trade
- Pursuit of economic prosperity (e.g. improving connectivity)
- Commitment to peace and stability

✓ Policy in which the Government works as one to promote a "Free and Open Indo-Pacific"

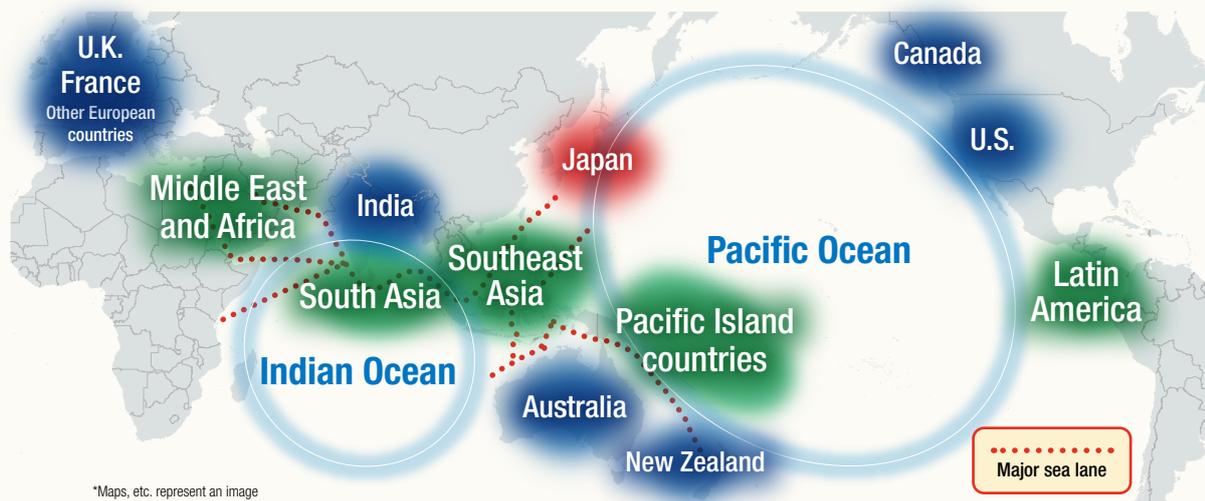
Characteristics of the Indo-Pacific Region

- Major sea lanes for Japan pass through the region, and much of the world's population is concentrated there. In addition, given the remarkable economic growth in the region, stability in the region is extremely important for the security and prosperity of Japan.
- On the other hand, there are various challenges to regional stability, such as the rapid modernization of military forces and increased military activity in the region.
- In addition, various countries in the region are taking measures to respond to these rapid changes in the environment.

Direction of MOD's Efforts

- Securing the stable use of major sea lanes by way of defense cooperation and exchange activities
- Preventing contingencies through confidence building and mutual understanding
- Contributing to peace and stability through active engagement in the region, in cooperation with partner countries

✓ There are many security challenges in the Indo-Pacific region
 ✓ Creating a desirable security environment for Japan by utilizing defense cooperation and exchanges



- The MOD/SDF are bolstering defense cooperation and exchanges with countries and regions of the Indo-Pacific that key sea lanes pass through, such as Southeast Asian countries, South Asian countries, and Pacific Island countries, as well as with the Middle East, Africa and Latin America, which are important for ensuring energy security.
- In promoting the FOIP, Japan will actively cooperate with countries that share the FOIP vision and have ties to the Indo-Pacific region, including the United States, Australia, India, Canada, New Zealand, and European countries such as the United Kingdom, France, and Germany.

✓ The FOIP is an inclusive vision. Any country can cooperate as long as it endorses the concept.

2007, announced the Japan-Australia Joint Declaration on Security Cooperation, and such joint declaration focusing on security with a country other than the United States was the first case in Japan. Japan and Australia have also developed the foundation for cooperation such as the Japan-Australia ACSA³, the Japan-Australia Information Security Agreement, and the Agreement concerning the Transfer of Defence Equipment and Technology.

In January 2022, the leaders of the two countries signed the Agreement between Japan and Australia concerning the facilitation of reciprocal access and cooperation between the Self-Defense Forces of Japan and the Australian Defence Force (“Japan-Australia Reciprocal Access Agreement”⁴), reaffirming that bilateral security and defense cooperation will be enhanced further.

(2) Recent Major Achievements in Defense Cooperation and Exchanges

In May 2021, Minister of Defense Kishi held a telephone conversation with Australian Minister for Defence Peter Dutton, in which they concurred on deepening the special strategic partnership between Japan and Australia, maintaining communication between their defense authorities, and continuing to vigorously promote defense cooperation and exchanges in order to uphold and reinforce a FOIP. The two ministers also expressed strong opposition to any attempts to unilaterally change the status quo by coercion and any activities that escalate tensions in the East China Sea and South China Sea, as well as concerns over China's Coast Guard Law. Furthermore, they exchanged views on the situation in North Korea and reaffirmed their commitment to closely coordinating toward the complete, verifiable, and irreversible dismantlement (CVID) of all of North Korea's weapons of mass destruction and ballistic missiles of all ranges.

The two ministers held another telephone conversation in February 2022, during which Minister of Defense Kishi extended his gratitude for the extensive support Australia provided to Japan in implementing international disaster relief activities in Tonga, including the receiving of SDF transport aircraft. In addition, Minister of Defense Kishi expressed appreciation for the Australian representative's participation in the Japan Pacific Islands Defense Dialogue (JPIDD) and for Australia's support for Japan's participation as an observer to the South Pacific Defence Ministers' Meeting (SPDMM).⁵ Both ministers agreed to further strengthen cooperation together with regional partners, including Pacific Island countries, and to work even harder to uphold and reinforce a Free and Open Indo-Pacific.

In June 2021, Minister of Defense Kishi, together with Minister for Foreign Affairs Motegi, held the Ninth Japan-Australia 2+2 Foreign and Defence Ministerial Consultations⁶ via video teleconference with Minister for Defence Dutton and Minister for Foreign Affairs Marise Payne, during which they shared a high-level strategic vision of regional affairs and expressed strong determination to further enhance bilateral security and defense cooperation. In discussions on the East China Sea and South China Sea, the four ministers unanimously expressed concerns over China's Coast Guard Law and opposition to China's claims on maritime interests in the South China Sea that are inconsistent with the United Nations Convention on the Law of the Sea (UNCLOS). The ministers also reaffirmed the importance of peace and stability across the Taiwan Strait and concurred to encourage the peaceful resolution of cross-Strait issues. Furthermore, the ministers agreed to deepen operational cooperation in the areas of security and defense, including increasing the complexity and sophistication of bilateral training. The ministers also confirmed that the SDF is ready to provide protection for the Australian

3 Official title: Agreement between the Government of Japan and the Government of Australia concerning Reciprocal Provision of Supplies and Services between the Self-Defense Forces of Japan and the Australian Defence Force.

In addition to the activities this agreement currently applies to, the following activities and situations will also be newly subject to the agreement: (1) Internationally coordinated operations for peace and security; (2) Situations threatening international peace and security that the international community is collectively addressing; (3) Perilous situations; (4) Armed attack situations, etc.; (5) Activities in situations threatening survival; (6) Rescue measures for Japanese nationals and others overseas; (7) Counter-piracy activities; (8) Elimination of mines and other dangerous objects; and (9) Intelligence gathering activities.

4 A bilateral agreement between the SDF and the ADF facilitating cooperative efforts such as bilateral/multilateral training and disaster relief activities by establishing procedures and clarifying legal status when the forces of one country visits the territory of the other.

5 A meeting that brings together defense ministers from countries located in the South Pacific (the seven countries of Tonga, Australia, New Zealand, PNG, Chile, France, and Fiji) to discuss a variety of security-related issues essential to maintaining peace and stability in the region.

6 For more information on the joint statement from the Ninth Japan-Australia 2+2 Foreign and Defence Ministerial Consultations, see the MOD website (https://www.mod.go.jp/j/approach/exchange/area/2021/20210609_aus-j.html)

Defence Force weapons and other assets under Article 95-2 of the Self-Defense Forces Law, whenever the appropriate opportunity arises. The SDF provided protection for the Australian Defence Force for the first time in November 2021.

In January 2022, Prime Minister Kishida and Prime Minister Scott Morrison held the Australia-Japan Leaders' Meeting via video teleconference, during which they agreed to further strengthen the relationship between Japan and Australia under the Special Strategic Partnership and to further substantiate the two countries' commitment toward realizing a FOIP. The two leaders also agreed to issue a new Joint Declaration on Security Cooperation at the earliest opportunity to serve as a compass for the two countries' future long-term efforts to deepen and broaden the scope of bilateral security cooperation, reflecting the significant developments in bilateral security and changes in the regional strategic environment since the Japan-Australia Joint Declaration on Security Cooperation was signed in 2007.

Prior to the video teleconference, the two leaders held a signing ceremony during which they signed the Japan-Australia Reciprocal Access Agreement. They welcomed the signing of the agreement, which will elevate bilateral security and defense cooperation between the two countries to a new level, and expressed their expectations for the further development of the Japan-Australia relationship.

In addition, during the international disaster relief activities conducted in the Kingdom of Tonga from January to February 2022, Japan dispatched personnel to the international coordination office established at the Australian Defence Force's Joint Operations Command, where they conducted various coordination activities and refueled the landing ship JS Osumi from a Royal Australian Navy supply ship, further strengthening the relationship between the two countries.

(3) Initiatives of Each Service

a. Joint Staff

In January and February 2022, the Chief of Staff, Joint Staff held a telephone conversation with General Angus Campbell, Chief of the Defence Force, during which they reaffirmed that Japan and Australia would coordinate closely with each other and work with the international community to support the victims of the volcanic eruption in Tonga that occurred in January that year, and that both sides would continue to coordinate

closely to contribute to peace and stability in the Indo-Pacific region.

b. GSDF

In November 2021, the Chief of Staff, GSDF, held a meeting with Lieutenant General Rick Burr, Chief of Army, whom he had officially invited to Japan. They agreed to build on bilateral and multilateral defense exchanges, bilateral training, and capacity building in a more multilayered manner than before in order to strengthen deterrence and response capabilities and contribute to peace and stability in the Indo-Pacific region. The two chiefs also signed a memorandum of understanding concerning the dispatch of the first liaison officer from the GSDF to the Australian Army.

c. MSDF

Japan-Australia bilateral training was conducted to improve tactical capabilities and strengthen cooperation between two Navies, with destroyer JS Murasame taking part in the southern waters of Kanto Area in June 2021, with the Indo-Pacific Deployment 21 (IPD21) units in northern Australia in September 2021, with destroyer JS Inazuma in the southern waters of the Shikoku Area in November 2021, and with destroyer JS Yudachi in the Bay of Bengal in March 2022.

d. ASDF

To enhance interoperability between Japan and Australia, in June 2021, the Chief of Staff, ASDF signed the "Arrangement between the Ministry of Defense of Japan as Represented by the Japan Air Self-Defense Force and the Department of Defence of Australia as Represented by the Royal Australian Air Force Concerning Air to Air Refueling" with Air Marshal Mel Hupfeld, Chief of Air Force.

 **See** Reference 37 (Recent Defense Cooperation and Exchanges with Australia (Past 3 Years))
Chapter 1, Section 5-2 (Track Record of Protection of Weapons and Other Equipment of the Units of the U.S. Forces and the Armed Forces of Other Countries (SDF Law Article 95-2))

(4) Cooperative Relationship, etc., among Japan, Australia and the United States

Japan and Australia share universal values and cooperate closely to resolve the various challenges the Indo-Pacific region and the international community face. In order to ensure greater effectiveness and efficiency of such cooperation, and to contribute to the peace and stability of the region, it is important for Japan and Australia, and their common ally, the United States, to proactively



Japan-Australia bilateral naval exercise

Japan-U.S.-Australia-India Summit Meeting (May 2022)
[Website of the Prime Minister's Office of Japan]

promote trilateral cooperation.

The Security and Defense Cooperation Forum (SDCF), a Director General-level meeting among the three countries of Japan, the United States and Australia, has been held 10 times since April 2007.

In July 2020, Minister of Defense Kono (then) held a video teleconference with U.S. Secretary of Defense Dr. Mark Esper (then) and Australian Minister for Defence Linda Reynolds (then) where they reaffirmed their joint commitment to enhance security, stability, and prosperity in the Indo-Pacific region in keeping with their shared values, longstanding alliances and close partnerships.

In addition, trilateral training by Japan, the United States, and Australia, as well as multilateral training by the three countries plus other countries, have been conducted on an ongoing basis. In June 2021, the GSDF conducted a field training exercise (Southern Jackaroo 21) with the U.S. Marine Corps and the Australian Army at the Mount Bunday Training Area in Australia to improve tactical capabilities and strengthen cooperation with the U.S. and Australian forces. In July 2021, the Chief of Staff, GSDF organized the Japan-U.S.-Australia Senior Leaders' Seminar, during which views were exchanged with the top leadership of the U.S. Army Pacific, U.S. Marines Corps Forces Pacific, and the Australian Army. The leaders shared the view that they would continue working together to uphold and reinforce a FOIP. From June to August 2021, the GSDF and MSDF participated in "Talisman Sabre," a multilateral exercise led by the U.S. and Australia in Australia, to improve tactical capabilities and strengthen cooperation with participating countries, including the U.S. and Australia. Then in October, the MSDF IPD21

units conducted multilateral training with the U.S., Australia, and the U.K. in the Bay of Bengal and with the U.S. and Australia east of Okinawa in order to improve tactical skills and strengthen cooperation with the U.S. and Australian naval forces. In February 2022, the Chief of Staff, MSDF exchanged views with the commander of the U.S. Pacific Fleet and the Australian Chief of Navy on issues in the Indo-Pacific region and reaffirmed matters such as the strengthening of cooperation. Also in February, the ASDF conducted Japan-U.S.-Australia multilateral training and humanitarian assistance and disaster relief training at the Guam-based multilateral exercise Cope North 22. A US-2 rescue aircraft from the MSDF also took part in the Japan-U.S.-Australia multilateral training to improve interoperability in a field training environment.

Japan will continue its efforts to improve interoperability while coordinating views on the situation and policy direction, through various opportunities with the United States and Australia.

 See Reference 52 (Participation in Multilateral Exercises (Past Three Years))

2 India

(1) Significance of Defense Cooperation and Exchanges with India

India is increasing its influence against a backdrop of its population (the world's second largest), its high economic growth, and its latent economic power. Located in the center of sea lanes that connect Japan with the Middle East and Africa, India is an extremely important country for Japan. Furthermore, Japan and India share universal values as well as common interests

in the peace, stability, and prosperity of Asia and the world, and have established the “Special Strategic and Global Partnership.” In this context, Japan and India have promoted cooperation in maritime security and various other areas, while utilizing some frameworks including the “2+2” meeting.

Defense cooperation and exchanges between Japan and India have steadily deepened since October 2008, when the two countries signed the Joint Declaration on Security Cooperation between Japan and India. Two countries have regularly conducted meetings and consultations at various levels such as the ministerial level, as well as service-to-service exchanges including bilateral and multilateral exercises. Moreover, the two countries signed the Memorandum on Defence Cooperation and Exchanges between the Ministry of Defense of Japan and the Ministry of Defence of the Republic of India in September 2014 and saw the conclusion of the Agreement concerning the Transfer of Defence Equipment and Technology as well as the Agreement between the Government of Japan and the Government of the Republic of India concerning Security Measures for the Protection of Classified Military Information in December 2015, further solidifying the institutional basis of Japan-India defense cooperation and exchanges. These agreements have strengthened the relationship between the two countries, which are capable of dealing with regional and global issues, as well as the foundation of this partnership.

(2) Recent Major Achievements in Defense Cooperation and Exchanges

The Acquisition and Cross-Servicing Agreement (ACSA) between Japan and India, which negotiations began in October 2018, was signed in September 2020 and entered into force in July 2021, after approval by Japan’s National Diet in May 2021. The First Japan-India 2+2 Foreign and Defence Ministerial Meeting was held in November 2019, in which the two countries acknowledged emerging security challenges and reiterated their commitment to advancing bilateral security cooperation. In addition, the Ministers shared the view to make continuous efforts for holding the bilateral exercises between the defense forces regularly and further expanding them. The Ministers noted the strengthening of exchange of information based on the

Implementing Arrangement for Deeper Cooperation between the Japan Maritime Self-Defense Force and the Indian Navy. The Ministers looked forward to proactive discussions in the working group on the defense equipment and technology cooperation and shared views on multilateral cooperation and regional issues.

In December 2020, Defense Minister Kishi held a telephone conversation with Defence Minister Singh. The two ministers reaffirmed achievements including the signing of the Japan-India ACSA and the successful completion of the naval exercise “Malabar,” welcoming the fact that bilateral and multilateral defense cooperation and exchanges have been promoted despite the COVID-19 pandemic. The two ministers also exchanged views on regional situations, including the East China Sea and the South China Sea, and the ministers concurred in sending a clear message that they strongly oppose any attempts to unilaterally change the status quo by coercion.

As for defense equipment and technology cooperation, Japan and India have been conducting the Cooperative Research on the Visual SLAM Based GNSS Augmentation Technology for UGV⁷/Robotics since July 2018.

While promoting the multilateral cooperation among Japan, the United States, Australia, and India held the first Japan-Australia-India-U.S. (Quad) Leaders’ Video Conference in March 2021, followed by the Quad Leaders’ Meeting held in the United States in September that year. The four leaders concurred to hold a Quad Leaders’ Meeting annually henceforward. The Quad leaders confirmed that the four countries would promote cooperation in not only space and cyber domains but also Maritime Domain Awareness (MDA) and humanitarian assistance and disaster relief (HA/DR) in the Japan-U.S.-Australia-India summit meeting held in Japan in May 2022. Defense authorities of the four countries also share the policy to continuously promote cooperation among them.

(3) Initiatives of Each Service

a. Joint Staff

The Chief of Staff, Joint Staff held a telephone conversation in November 2020 with General Rawat, Chief of Defence Staff, in which they reaffirmed their intent to strengthen bilateral cooperation to further

7 “UGV” stands for “Unmanned Ground Vehicle.”

promote the “Special Strategic and Global Partnership” and the importance of promoting Japan-U.S.-Australia-India defense cooperation under FOIP.

b. GSDF

In June 2021 and March 2022, the Chief of Staff, GSDF, held a telephone conversation with General Naravane, Chief of the Army Staff, and held a video teleconference in March 2022, in which they concurred that strengthening bilateral relations between Japan and India is important for peace and stability in the Indo-Pacific region and agreed to promote multilayered defense cooperation between the armies of India and Japan. From February to March 2022, a bilateral exercise (Dharma Guardian 21) was conducted with the Indian Army in India to improve the GSDF's tactical capabilities in counterterrorism and further strengthen cooperation between the armies of India and Japan.

c. MSDF

In July 2021, the Chief of Staff, MSDF, together with Admiral Singh, Chief of the Naval Staff, participated as panelists in the first India-Japan Forum and discussed the importance of Japan-India naval cooperation. Discussions were also held in September 2021 at the International Seapower Symposium (ISS) in the U.S., where the chiefs commended the improvement of Japan-India bilateral capabilities and agreed to cooperate further going forward. Furthermore, in February 2022, when the Chief of Staff, MSDF participated in MILAN 2022, a multilateral exercise organized by the Indian Navy, he met with Admiral Kumar, who took over as Chief of Naval Staff in December 2021. The chiefs agreed to elevate the content of Japan-India bilateral training.

In June 2021, Japan-India bilateral training was conducted with Indian vessels by MSDF Overseas



SDF personnel in the Malabar 2021 Japan-U.S.-India-Australia Multilateral Naval Exercise

Training Cruise units in the Indian Ocean and by a MSDF supply ship in the East China Sea to improve tactical skills and strengthen cooperation with the Indian Navy. In October 2021, bilateral training with the Indian Navy was conducted by the MSDF IPD21 units in India's western waters, and in January 2022 by the MSDF Indo-Pacific and Middle East Deployment (IMED21) units in the Bay of Bengal. Then from February to March 2022, the MSDF participated in the multilateral exercise (MILAN 2022) organized by the Indian Navy in the vicinity of Visakhapatnam. Through these exercises, Japan and India demonstrated their strong cooperation and solidarity in upholding and reinforcing a FOIP. Furthermore, as in 2020, the Japan-U.S.-Australia-India multilateral exercise Malabar 21 was again conducted by the four countries from August to September, and in October 2021 in Guam and its surrounding waters, in the Western Pacific (the Philippine Sea), and in the Bay of Bengal. This exercise embodied the unified determination of the four countries to realize a FOIP and demonstrated to those at home and abroad the cooperation and solidarity of the four countries that share fundamental values such as democracy and the rule of law.

d. ASDF

In June 2021, the Chief of Staff, ASDF and Air Chief Marshal Bhadauria, Chief of the Air Staff, held a video teleconference to promote defense cooperation and exchanges between the Japanese and Indian air forces. Following this, in October 2021, the Chief of Staff, ASDF held a video teleconference with Air Chief Marshal Chaudhari, Chief of the Air Staff, during which they reaffirmed the importance of defense cooperation and exchanges between the two countries and agreed to continue to promote it.



ASDF Chief of Staff Izutsu in a video teleconference with the Indian Chief of the Air Staff

In February and March 2022, the ASDF used C-2 transport aircraft to transport personnel and equipment in order to support the GSDF's participation in the Japan-India bilateral Army exercise (Dharma Guardian 21) conducted in India.

See Reference 38 (Recent Defense Cooperation and Exchanges with India (Past Three Years))

3 Association of South-East Asian Nations (ASEAN)

(1) Significance of Defense Cooperation and Exchanges with ASEAN Member States

ASEAN countries have high potential as a growth center, with a population of approximately 670 million people and continuous high economic growth. In addition, ASEAN countries are situated in strategically important areas that occupy key points on Japan's sea lanes, and they play an important role in ensuring peace and prosperity of Japan and the region as a whole.

Given the importance of ASEAN countries, there is great significance in the MOD/SDF strengthening defense cooperation and exchanges with each ASEAN country while supporting efforts to enhance ASEAN centrality, unity, and resilience as the foundation for regional cooperation. This will not only contribute to promoting a FOIP, but also lead to the creation of a favorable security environment for Japan.

Based on this principle, Japan is promoting confidence-building and mutual understanding through high-level and working-level exchanges as well as cooperation, such as capacity building, bilateral/multilateral exercises, and defense equipment and technology cooperation with ASEAN countries. In addition to bilateral cooperation, Japan also conducts cooperation within multilateral frameworks such as the ADMM-Plus and the ASEAN Regional Forum (ARF). The Vientiane Vision, which Japan announced in 2016 as a guideline for Japan-ASEAN defense cooperation, was the first transparent overview of priority areas for the direction of defense cooperation with ASEAN as a whole. In November 2019, at the 5th ASEAN-Japan Defense Ministers' Informal Meeting held in Thailand, then Defense Minister Kono announced the Vientiane Vision 2.0, an updated version of the Vientiane Vision, and ASEAN ministers welcomed it. The MOD will continue to actively promote such bilateral and multilateral cooperation going forward.

See 3 of this Section (Promotion of Multilateral Security Cooperation)
4 of this section (Proactive and Strategic Initiatives for Capacity Building)
Reference 39 (Recent Defense Cooperation and Exchanges with ASEAN Member States (Past Three Years))
Reference 51 (Vientiane Vision 2.0)

(2) Indonesia

a. Significance of Defense Cooperation and Exchange with Indonesia

Indonesia is a G20 member country and major power in the Southeast Asia region with the world's fourth largest population (about 270 million people). During the Japan-Indonesia summit meeting in March 2015, then Prime Minister Abe and President Joko agreed to strengthen their Strategic Partnership underpinned by sea and democracy and reaffirmed their intention to hold a Japan-Indonesia ("2+2") Foreign and Defense Ministerial Meeting. The two countries engage in defense cooperation and exchanges at various levels and fields.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In March 2021, Minister of Defense Kishi held an in-person defense ministers' meeting in Tokyo with Defence Minister Prabowo. The ministers reaffirmed the need for observing international law, including the United Nations Convention on the Law of the Sea (UNCLOS), and agreed to further provide defense cooperation and exchanges, including bilateral training.

In the same month, the Second Japan-Indonesia Foreign and Defense Ministerial Meeting ("2+2") was held in Tokyo, during which the Agreement concerning the Transfer of Defense Equipment and Technology was signed and entered into force, and regional affairs



Japan-Indonesia Goodwill Training

and bilateral cooperation were discussed. Both sides exchanged their views on the situations in the East China Sea and South China Sea. Furthermore, both sides also shared serious concerns about the continued and strengthened unilateral attempts to change the status quo.

c. Initiatives of Each Service

(a) GSDF

In August 2021, the Chief of Staff, GSDF held a telephone conversation with General Perkasa, Chief of Staff of the Indonesian Army, during which they shared their views on the importance of an international order based on the rule of law and concurred to strengthen cooperation between their armies.

(b) MSDF

In June 2021, the MSDF Overseas Training Cruise units conducted a goodwill exercise with the Indonesian Navy to promote mutual understanding and strengthen relationships of trust. In August 2021, the Chief of Staff, MSDF participated in the online International Maritime Security Symposium (IMSS) organized by the Indonesian Navy and exchanged views with other participants on maritime security. Furthermore, at the International Seapower Symposium (ISS) organized by the U.S. Navy in September 2021, the Chief of Staff, MSDF had a talk with Vice Admiral Purwono, Vice Chief of Staff of the Indonesian Navy, during which the two leaders concurred to promote defense cooperation and exchanges, including a goodwill exercise in the South China Sea.

(3) Vietnam

a. Significance of Defense Cooperation and Exchanges with Vietnam

Vietnam is a coastal country in the South China Sea with

a population of approximately 97 million. Cooperation and exchanges have been progressing between the defense authorities of Japan and Vietnam. Following the Defense Ministerial Meeting in September 2021, the two countries have been promoting various types of cooperation, including high-level and multilateral cooperation, under “Japan-Vietnam Defense Cooperation at the New Level,” through which the two countries aim to not just cooperate for the benefit of Japan and Vietnam, but to more proactively contribute to the peace and stability of the region and the international community.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In June 2021, Minister of Defense Kishi held the Japan-Vietnam Defense Ministers’ Video Teleconference with General Giang, Minister of National Defence of Vietnam. The ministers agreed that both countries will work more closely to elevate the bilateral relationship of defense cooperation to a “New Level.” In September 2021, Defense Minister Kishi visited Vietnam and held the Japan-Vietnam Defense Ministerial Meeting with Defense Minister Giang. The ministers took this opportunity to redefine the two countries’ defense cooperation as not just bilateral cooperation for Japan and Vietnam, but also for the purpose of more proactively contributing to the peace and stability of the region and the international community. Under this “New Level” cooperative relationship, they concurred that Japan and Vietnam will collaborate at various levels. The ministers also welcomed the signing of the Agreement concerning the Transfer of Defense Equipment and Technology. In November of 2021, the Japan-Vietnam Defense Ministerial Meeting was held at the Japan Ministry of Defense which became the third meeting in the same year. Defense Minister Giang requested Japan to share knowledge to assist Vietnamese preparation to participate in the United Nations Interim Security Force for Abyei (UNISFA). Defense Minister Kishi stated that Japan will provide necessary cooperation, including dispatching personnel comprised mainly of GSDF personnel to Vietnam. In addition, the ministers welcomed the signing of the “Memorandum between the Ministry of Defense of Japan and the Ministry of National Defence of the Socialist Republic of Viet Nam on Cybersecurity Cooperation” and the “Memorandum between the Ministry of Defense of Japan and the Ministry of National Defence of the Socialist Republic



Adm. Yamamura, Chief of Staff, MSDF, in the IMSS

of Viet Nam on Cooperation in the Field of Military Medicine” between the Japanese and Vietnamese defense ministries that day.

c. Initiatives of Each Service

(a) Joint Staff

In November 2021, the Chief of Staff, Joint Staff held a video teleconference with Senior Lieutenant General Cuong, Chief of the General Staff of the Vietnam People’s Army and Deputy Defence Minister, during which they reaffirmed the significance of further advancing Japan-Vietnam defense cooperation, which had been elevated to a “New Level,” and deepening cooperation between the two countries to realize a FOIP.

(b) GSDF

In July 2021, the Chief of Staff, GSDF held a video teleconference with Lieutenant General Nghia, Deputy Chief of the General Staff of the Vietnam People’s Army, during which they exchanged views on the security situation in the Indo-Pacific region and agreed to strengthen cooperation between the Japanese and Vietnamese ground forces. In addition, based on the outcome of the November 2021 Japan-Vietnam Defense Ministerial Meeting, the GSDF held an online meeting in the same month, and shared the knowledge it had gained through past participation in PKO in order to assist Vietnam in preparing to participate in UNISFA. Then, for three weeks beginning in December that year, GSDF personnel were dispatched to Vietnam to provide advice and practical assistance in packing various items for the units participating in UNISFA.

(c) MSDF

In October 2021, the destroyer JS “Shiranui” of the MSDF IPD21 unit called at Hai Phong Port to conduct a goodwill training with the Vietnam People’s Navy for the first time in about two years. The MSDF also conducted goodwill exercises with the Vietnam People’s Navy in November 2021 and again in February 2022. In March 2022, the destroyer JS “Suzutsuki” called at Cam Ranh Bay as part of an overseas training cruise. In addition, to support capacity building, an online seminar was conducted for the Vietnam People’s Navy in January 2022 with the aim of improving capabilities in the areas of underwater unexploded ordnance disposal and submarine medicine.

(d) ASDF

In September 2021, ASDF transport aircraft C-2 visited Vietnam during overseas flight training to learn the air routes and regional characteristics, and to improve



Minister of Defense Kishi meeting with the Minister of Defence of Viet Nam in Japan
(November 2021)

capabilities to perform overseas missions.

In addition, the ASDF conducted capacity building for Vietnam’s Air Defence - Air Force in Hanoi and its vicinity in February 2022, where they shared knowledge and provided practical assistance in the area of search and rescue by aircraft and exchanged views with local rescue personnel.

(4) Singapore

a. Significance of Defense Cooperation and Exchanges with Singapore

In December 2009, Singapore became the first country in Southeast Asia to sign a memorandum on defense exchanges with Japan. Since then, various cooperative relationships have been progressing steadily based on this memorandum.

b. Recent Major Achievements in Defense Cooperation and Exchanges

Singapore and Japan have been conducting meetings on a regular basis between their defense authorities. Moreover, the two countries actively conduct high-level defense exchanges, and Japan’s Minister of Defense attends the Shangri-La Dialogue organized by the International Institute for Strategic Studies (IISS) almost every year to explain Japan’s security policy.

c. Initiatives of Each Service

In April 2021, the Chief of Staff, MSDF held a video teleconference with Rear-Admiral Beng, Chief of Navy, during which they agreed to continue port calls and air visits by ships and aircraft and to strengthen relations between the two navies. In October 2021, destroyers JS Kaga, JS Murasame, and JS Shiranui constituting MSDF IPD21 unit made a port call in Singapore in order to strengthen ties with Singapore. Furthermore, destroyer JS Yudachi took part in a goodwill training

with Singapore Navy in the Bay of Bengal in March 2022.

Additionally, MSDF vessels have been making port calls, and actively conducting service-to-service exchanges during international operations such as counter-piracy operations and UN peacekeeping operations.

(5) The Philippines

a. Significance of Defense Cooperation and Exchanges with the Philippines

Between Japan and the Philippines, a coastal state in the South China Sea and an ally of the United States, there are frequent mutual visits by naval vessels, working-level exchanges including Military-Military Consultation, and service-to-service exchanges along with high-level exchanges.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In June 2021, Minister of Defense Kishi held a video teleconference with Secretary of National Defense Lorenzana. The ministers acknowledged the importance of freedom of navigation and overflight, and reaffirmed the critical need to observe international law, including the United Nations Convention on the Law of the Sea (UNCLOS), and to uphold and reinforce a FOIP. They also shared their intent to send a message to the international community that Japan and the Philippines will strongly oppose any unilateral attempts to change the status quo by force and any actions that increase tensions. In this context, the ministers expressed serious concerns over the China's Coast Guard Law. In addition, regarding the transfer of air surveillance radar systems that was decided in August 2020, they shared the view that the transfer process was proceeding steadily and welcomed the progress.

c. Initiatives of Each Service

In 2021, the GSDF, MSDF, and ASDF conducted bilateral training with the Armed Forces of the Philippines in the Philippines.

(a) GSDF

In June 2021, the Chief of Staff, GSDF held a telephone conversation with Lieutenant General Centino, Commanding General of the Philippine Army. They shared the view that the Indo-Pacific region is a focal point for security, expressed serious concerns about attempts to change the status quo in the South China Sea, and concurred to strengthen cooperation between



GSDF personnel in KAMANDAG 21

the armies of Japan and the Philippines. In addition, the GSDF Amphibious Rapid Deployment Brigade participated in the multilateral exercise “Kamandag 21” organized by the U.S. and the Philippines in order to improve its disaster relief capabilities, as well as to enhance mutual understanding and strengthen cooperation between Japan and the Philippines through training.

As for capacity building, in November 2021, as a part of capacity building in the field of Humanitarian Assistance and Disaster Relief (HA/DR), the GSDF conducted a lecture for the Philippine Army at the outskirts of Manila on the handling of life-saving equipment that Japan provided to the Philippines through Official Development Assistance (ODA), and shared knowledge necessary for conducting search and rescue training using the equipment.

(b) MSDF

In September 2021, at the International Seapower Symposium (ISS) organized by the U.S., the Chief of Staff, MSDF had a talk with Vice Admiral Bordado, Chief of the Philippine Navy, during which they agreed to promote defense cooperation and exchanges, including increased opportunities for port calls by the MSDF and bilateral training. In July 2021, the MSDF Overseas Training Cruise units made a port call at Davao City and conducted a goodwill exercise with the Philippine Navy. In October 2021, the MSDF took part in the Exercise SAMA SAMA 2021, a multilateral naval training organized by the United States and Philippines. Then in November that year, destroyers JS Kaga and JS Murasame of the IPD21 unit made a port call in Subic and conducted a goodwill exercise with the Philippine Navy. Through these exercises, the MSDF aimed to improve tactical skills and promote mutual

understanding with the Philippine Navy.

(c) ASDF

In June 2021, the Chief of Staff, ASDF participated in the online Air Force Symposium organized by the Philippine Air Force and delivered a speech on “Command and Control in the Digital Age.” In July 2021, an ASDF C-130H transport aircraft conducted the first Air-to-Air bilateral training with the Philippine Air Force at Clark Air Base. The training aimed to improve capacity in HA/DR and strengthen interoperability with the Philippine Air Force. In January 2022, the Chief of Staff, ASDF held a video teleconference with Major General Canlas, Commanding General of the Philippine Air Force, during which they reaffirmed that cooperation between the Japanese and Philippine air forces is progressing and concurred to further promote Air-to-Air initiatives.

As for capacity building, in September 2021, a flight surgeon and other experts from the ASDF shared their expertise in flight medicine and air transport of patients in an online format.

 See Part IV Chapter 4 Section 5-3 (Building New Defense Equipment and Technology Cooperation)

(6) Thailand

a. Significance of Defense Cooperation and Exchanges with Thailand

With Thailand, Japan has longstanding defense cooperation and exchanges based on the traditionally good relationship between the two countries, including the commencement of the dispatch of Defense Attachés and consultations between their defense authorities from early years. At the National Defense Academy, a Thai student became the first foreign student to be accepted in 1958. Since then, Thailand has sent the largest cumulative number of students to the academy.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In May 2021, Minister of Defense Kishi held a video teleconference with General Prayut, Prime Minister and Minister of Defence of Thailand. The ministers exchanged views on regional situations, including the East China Sea and South China Sea, reconfirmed the importance of freedom of navigation and overflight, and reaffirmed that the ASEAN Outlook on the Indo-Pacific (AOIP) shares many fundamental principles with the FOIP strategy in promoting peace and cooperation.

Japan and Thailand signed the Agreement concerning

the Transfer of Defense Equipment and Technology and it entered into force during Prime Minister Kishida’s visit to Thailand in May 2022.

c. Initiatives of Each Service

(a) Joint Staff

Since 2005, the MOD/SDF has continuously participated in the multilateral exercise “Cobra Gold” cohosted by the U.S. and Thailand. Most recently, the MOD/SDF participated in the multilateral exercise Cobra Gold 22 held from February to March 2022 and enhanced joint operation capabilities by conducting training on coordination related to cooperation and support activities in response to situations threatening international peace and security that the international community is continuously addressing.

(b) MSDF

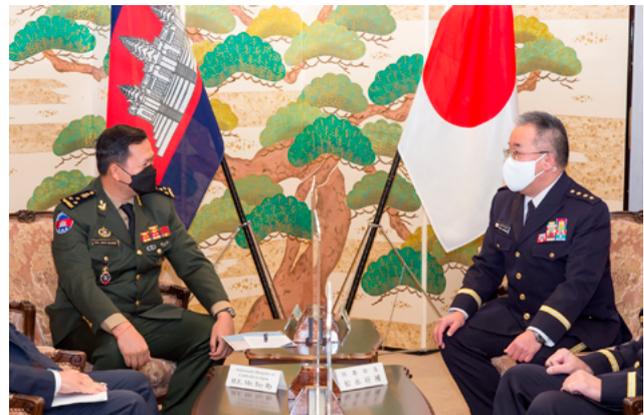
In January 2022, the Chief of Staff, MSDF held a video teleconference with Admiral Somprasong, Commander-in-Chief of the Royal Thai Navy, during which they concurred to further strengthen the relationship between the two navies by taking advantage of the maritime forces, which can continue to engage in contactless defense exchanges even during the COVID-19 pandemic.

In March 2022, the MSDF Overseas Training Cruise unit conducted a goodwill exercise with the Thai Royal Navy to improve tactical capabilities and strengthen cooperation.

(7) Cambodia

a. Significance of Defense Cooperation and Exchange with Cambodia

In 1992, Cambodia became the first country to which Japan sent a SDF unit for UN PKO. As indicated by



Gen. Yoshida, Chief of Staff, GSDF, holding a conference with the Commander of the Royal Cambodian Army

Japan's capacity building for Cambodia since 2013 and other programs, defense cooperation and exchanges between the two countries have made steady progress.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In June 2021, Minister of Defense Kishi held a video teleconference with General Tea Banh, Deputy Prime Minister and Minister of National Defense. The ministers confirmed the importance of freedom of navigation and overflight, reaffirmed the critical need for observing international law based primarily on the United Nations Convention on the Law of the Sea (UNCLOS), and reaffirmed that Japan and Cambodia will work together to promote cooperation between the ASEAN Outlook on the Indo-Pacific (AOIP) and the FOIP strategy to uphold and reinforce a free and open Indo-Pacific. The ministers also concurred that Japan and Cambodia will promote further bilateral defense cooperation and exchanges, including continuing cooperation in training personnel in the field of PKO.

c. Initiatives of Each Service

(a) GSDF

In February 2022, the Chief of Staff, GSDF officially invited Lieutenant General Hun Manet, Commander of Royal Cambodian Army, to Japan, where they agreed to build trust among top army officials and strengthen Army-to-Army relations. The commander also paid a courtesy call on Prime Minister Kishida, Minister of Defense Kishi, and Minister of Foreign Affairs Hayashi, expressed his support for Japan's position on a FOIP and his desire to further strengthen Japan-Cambodia cooperation.

(b) MSDF

In March 2022, minesweeper tender JS "Uruga" and minesweeper ocean JS "Hirado" of the MSDF IMED21 unit visited the port Sihanoukville and took part in a goodwill training, etc., with Royal Cambodian Navy. During this visit, a welcoming ceremony was held at the port which was attended by General Tea Banh, Deputy Prime Minister and Minister of National Defense. Some members of the unit also visited Ream Naval Base and paid a courtesy call on the commander of the Ream Naval Base to promote mutual understanding with the Royal Cambodian Navy.

(8) Myanmar

a. Recent Major Achievements in Defense Cooperation and Exchanges

In response to the coup d'état by Myanmar's armed forces that occurred in February 2021, the defense authorities of concerned countries came together to condemn the use of military force by the national armed forces and related security agencies against the civilian population and to call for the armed forces to stop the violence in a joint statement signed by the chiefs of staffs of 12 countries including Japan and the U.S., in March 2021. Since 2018, Japan has been providing assistance to Myanmar for the establishment of a learning environment for the Japanese language at the Japanese Language Department of the Defense Services Academy of Myanmar.

(9) Laos

a. Recent Major Achievements in Defense Cooperation and Exchanges

In June 2021, Minister of Defense Kishi held a video teleconference with General Chansamone, Minister of National Defence. The ministers shared the view to further promote bilateral defense cooperation and exchanges, including continuing cooperation in the field of HA/DR.

As for capacity building, an online seminar on HA/DR (search and rescue/medic) was held for the Lao People's Army in June 2021.

(10) Malaysia

a. Significance of Defense Cooperation and Exchange with Malaysia

Japan signed the Agreement concerning the Transfer of Defense Equipment and Technology with Malaysia, a coastal state in the South China Sea, in April 2018. In September 2018, then Minister of Defence Mohamad Sabu visited Japan signing the memorandum on Japan-Malaysia defense cooperation and exchanges with then Minister of Defense Onodera.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In April 2021, Minister of Defense Kishi held a video teleconference with Defence Minister Ismail Sabri. The two ministers confirmed the importance of freedom of navigation and overflight and reaffirmed the critical need for observing international law, including the United Nations Convention on the Law of the Sea (UNCLOS).

c. Initiatives of Each Service

(a) MSDF

In April 2021, the Chief of Staff, MSDF held a video teleconference with Admiral Reza, Chief of Navy, during which they agreed to further strengthen relations in various fields in order to realize a FOIP. In that month, the MSDF Overseas Training Cruise Unit also made a port call in Port Klang and took part in a goodwill training with Malaysian Navy. Furthermore, in March 2022, minesweeper tender JS Uruga and minesweeper ocean JS Hirado of the MSDF IMED21 unit visited the port of Kota Kinabalu.

(b) ASDF

In July 2021, the Chief of Staff, ASDF held a video teleconference with General Ackbal, Chief of Air Force. The chiefs shared the view that any attempt to unilaterally change the status quo or increase tensions by force in the region is strictly unacceptable, and agreed to develop the Air-to-Air relationship. In November 2021, a C-2 transport aircraft of ASDF visited Kuala Lumpur International Airport and conducted a unit-to-unit exchange with the Royal Malaysian Air Force.

(11) Brunei

a. Recent Major Achievements in Defense Cooperation and Exchanges

In May and December 2021, Minister of Defense Kishi held a video teleconference with The Honorable Pehin Halbi, Minister of Defence II of Brunei. During their December teleconference, the ministers welcomed



Goodwill training with the Royal Brunei Navy

the completion of the coordination for Memorandum on Defense Cooperation and Exchanges between Japan-Brunei defense authorities. Minister of Defense Kishi announced Japan's entry to the ASEAN Direct Communications Infrastructure (ADI), the ASEAN defense hotline advanced by Brunei.

b. Initiatives of Each Service

In June 2021, the MSDF Overseas Training Cruise units visited Muara and conducted a goodwill exercise with the Royal Brunei Navy to improve tactical capabilities and strengthen cooperation. In addition, in December 2021, the MSDF IMED21 minesweeper tender JS "Uruga" and minesweeper ocean JS "Hirado" visited Muara and conducted a goodwill exercise with the Royal Brunei Navy to promote mutual understanding between the navies.

See 3 of this Section (Promotion of Multilateral Security Cooperation)

4 Republic of Korea (ROK)

(1) Significance of Japan-ROK Defense Cooperation and Exchanges

The cooperation between Japan and ROK is increasingly important in the security environment surrounding the two countries which grows in severity and complexity, including the nuclear and missile issues of North Korea, requirement to response to large-scale natural disasters, counterterrorism, counter-piracy, and maritime security.

On the other hand, issues between the defense authorities of Japan and the ROK are affecting bilateral defense cooperation and exchange. Examples include the ROK's response to the MSDF colors⁸ at an international fleet review ceremony hosted by the ROK in October 2018, the fire-control radar irradiation of an MSDF aircraft by a ROK Navy destroyer in December 2018,⁹ military exercises by the ROK Navy in Japan's surrounding waters including the one around Takeshima, and the ROK's termination notification of the Japan-ROK General Security of Military Information Agreement (GSOMIA) (however, the termination notification was later suspended). Due to the continued negative response by the ROK defense

⁸ As for MSDF's ship flag, see the MOD website (<https://www.mod.go.jp/j/publication/net/shiritai/flag/index.html>)

⁹ In December 2018, Gwanggaeto-daewang, the Great class destroyer of the ROK Navy, directed a fire control-radar at a MSDF patrol aircraft conducting warning and surveillance activities off the coast of Noto Peninsula (within Japan's exclusive economic zone). Taking the incident seriously, in January 2019, the MOD published its final statement, compiling objective facts, and has been urging the Korean side to take recurrence prevention measures. The SDF patrol aircraft was flying while keeping sufficient altitude and distance, and did not fly in a way that could have threatened the Korean navy vessel. The MOD will expend all possible means to monitor the situation and gather intelligence while fully considering safety. For details, see the MOD website (<https://www.mod.go.jp/j/approach/defense/radar/index.html>)

authorities, the MOD/SDF will continue to call on the ROK to appropriately deal with these issues so as not to impair the cooperation between Japan and the ROK, and between Japan, the ROK and the United States.

(2) Recent Major Achievements in Defense Cooperation and Exchanges

In November 2019, Defense Minister Kono (then) held a meeting with Minister of National Defense Jeong Kyeong-doo (then) on the occasion of the 6th ADMM-Plus. Mr. Kono stated that Japan-ROK bilateral relations as well as the trilateral relations between Japan, the ROK and the U.S. are extremely significant in the very severe security environment surrounding Japan and the ROK although the defense relations between the two countries have been extremely sour because of various bilateral issues since 2018. The two Ministers agreed that the two defense authorities would continue their communication.

(3) Japan-U.S.-ROK Cooperative Relationship

Since Japan, the United States, and the ROK share common interests pertaining to the peace and stability of this region, it is important for the three countries to seize opportunities to promote close cooperation in addressing various security issues, including those regarding North Korea.

Japan, the United States, and the ROK have usually conducted a Trilateral Defense Ministerial Meeting on the sidelines of the Shangri-La Dialogue. In June 2019, Defense Minister Iwaya (then), ROK Minister of National Defense Jeong Kyeong-doo (then), and U.S. Acting Secretary of Defense Patrick Shanahan (then) convened the Trilateral Defense Ministerial Meeting. The three Ministers recognized the international community's shared goal of North Korea's full compliance with its international obligations in accordance with all relevant UN Security Council Resolutions, which call for North Korea's complete denuclearization in a verifiable and irreversible manner.

They underscored commitment to cooperation and coordination with the international community for fully implementing UN Security Council Resolutions, including sustained international cooperation to deter, disrupt, and ultimately eliminate illicit ship-to-ship transfers by North Korean ships. Regarding regional security issues, the Ministers reaffirmed that freedom of navigation and overflight must be ensured, and that

all disputes should be resolved in a peaceful manner in accordance with the principles of international law. Based on this view, they shared the recognition of strengthening security cooperation between Japan, the United States and the ROK.

At the Japan-U.S.-ROK Defense Ministerial Meeting held by then Defense Minister Kono, ROK Minister of National Defense Jeong Kyeong-doo, and U.S. Secretary of Defense Mark Esper on the occasion of the 6th ADMM-Plus in November 2019, the three ministers committed to further trilateral security cooperation, including information sharing, high-level policy consultation, and bilateral/multilateral exercises, based on the international community's shared goal, which calls for North Korea's complete denuclearization as well as the abandonment of ballistic missiles in a verifiable and irreversible manner, North Korea's full compliance with its international obligations in accordance with all relevant UN Security Council Resolutions, and the importance of a rules-based order.

Furthermore, Mr. Kono held a Japan-U.S.-ROK Defense Ministers' telephone conversation in February 2022, in which the three ministers reconfirmed the importance of the cooperation of the three countries on security, and coincided in their opinion that the countries would continue close cooperation to counter North Korea's launching ballistic missiles.

At the working level, the three countries have cooperated with each other while closely sharing information through such opportunities as Director-General and Director level meetings and video teleconferences based on the framework of the Japan-U.S.-ROK Defense Trilateral Talks (DTT), as well as chief-of-staff level meetings.

In October 2021, a Director General-level teleconference was held between the three countries of Japan, the U.S., and ROK to discuss the situation in North Korea including its nuclear and missile programs, regional security, and strengthening security cooperation among the three countries. The Japanese side brought up the importance of the three countries working in close coordination to achieve the international community's common goal of North Korea's full compliance with its international obligations in accordance with all relevant UN Security Council resolutions, which call for North Korea's complete denuclearization and the abandonment of ballistic missiles in a verifiable and irreversible manner. In response to a series of missile

launches in North Korea after January 2022, Japan-U.S.-ROK Director General-level teleconferences were held in January and February 2022, and Japan-U.S.-ROK Defense Ministerial Meeting in February 2022, in which the importance of trilateral security cooperation was reaffirmed and the strengthening of such cooperation were discussed.

(4) Initiatives of Each Service

a. Joint Staff

In April 2021, the Chief of Staff, Joint Staff attended the Japan-U.S.-ROK Trilateral Chiefs of Defense Meeting in Hawaii. In addition to the Chief of Staff, Joint Staff, the meeting was attended by General Milley, Chairman of the U.S. Joint Chiefs of Staff, and General Won, Chairman of the ROK Joint Chiefs of Staff, among others, who discussed security issues shared by the three countries and agreed to work together to strengthen multilateral cooperation for the sake of regional peace and stability. Furthermore, the Japan-U.S.-ROK Joint-Chiefs-of-Staff-level meeting was also held in Hawaii in March 2022. The Chief of Staff, Joint Staff, took part in the meeting with General Milley, Chairman of the U.S. Joint Chiefs of Staff, and General Won, Chairman of the ROK Joint Chiefs of Staff. The three generals discussed multilateral cooperation and multilateral trainings to prepare for the threats against peace and stability in the region, enhance security cooperation, and promote a Free and Open Indo-Pacific (FOIP), and coincided in their opinion that the three countries would enhance the cooperation to realize the results of the discussion.

b. MSDF

The MSDF took part in Japan-U.S.-Australia-ROK multilateral naval exercise Pacific Vanguard 21, Japan-Australia-ROK multilateral naval training, and Japan-U.S.-Australia-ROK-Canada multilateral naval training included in multilateral exercise Talisman Sabre organized by the United States and Australia, in Australia's eastern sea and airspace in July 2021, to improve tactical skills and strengthen cooperation with the navies of the United States, Australia, ROK, and Canada.

The three countries of Japan, the U.S., and the ROK



Japan-U.S.-Australia-ROK Multilateral Naval Exercise "Pacific Vanguard 21"

need to enhance their security cooperation into the future, taking advantage of various available opportunities.

See Reference 52 (Participation in Multilateral Exercises (Past Three Years))

(5) Japan-ROK GSOMIA

Based on the Trilateral Information Sharing Arrangement Concerning the Nuclear and Missile Threats Posed by North Korea signed in December 2014, the defense authorities in Japan and the ROK have exchanged and shared classified information regarding North Korea's nuclear weapons and missiles via the United States. In light of the increasingly serious situation surrounding North Korea with its frequently repeated ballistic missile launches and nuclear tests, in November 2016, the GSOMIA was concluded between Japan and the ROK to further promote bilateral cooperation. This agreement serves as a framework to appropriately protect classified military information shared between the Japanese and ROK governments. In August 2019, the Government of the ROK notified the Government of Japan of its intention to terminate the GSOMIA in writing. However, in November 2019, the ROK Government notified Japan that it would suspend the effect of its termination of the agreement.¹⁰ Then Minister of Defense Kono commented that Japan-U.S. and Japan-ROK bilateral cooperation and Japan-U.S.-ROK trilateral cooperation are important amid the severe security environment in East Asia, and that he considered that the ROK Government made its decision

¹⁰ The provision of the GSOMIA on termination of the agreement is as follows:

ARTICLE 21 ENTRY INTO FORCE, AMENDMENT, DURATION AND TERMINATION (excerpt)

3. This Agreement shall remain in force for a period of one year and shall be automatically extended annually thereafter unless either Party notifies the other in writing through the diplomatic channel ninety days in advance of its intention to terminate the Agreement.

from a strategic perspective taking into account the current security situation in the region.

See Reference 40 (Recent Japan-ROK Defense Cooperation and Exchanges (Past Three Years))

5 European Countries, Canada, and New Zealand

European countries, Canada, and New Zealand share universal values with Japan and play a central role in initiatives to address common challenges to global security, with a primary focus on non-traditional security areas, such as counter-terrorism and combating illicit ship-to-ship transfers, as well as international peace cooperation activities. In this regard, promoting defense cooperation and exchanges with these countries provides the foundations for Japan to become actively involved in dealing with these challenges and this is important for all of Japan, European countries, Canada, and New Zealand.

See Reference 41 (Recent Defense Cooperation and Exchanges with European Countries, Canada and New Zealand (Past Three Years))

(1) The United Kingdom

a. Significance of Defense Cooperation and Exchanges with the United Kingdom

The United Kingdom, being a major power that has influence not only in Europe but also in the rest of the world, has historically maintained close relations with Japan. On the security front, Japan shares the same strategic interests as the United Kingdom, as both countries are important allies of the United States. Given this relationship, it is extremely important for Japan to promote cooperation with the United Kingdom by working together on global issues, such as international peace cooperation activities, counterterrorism, counter-piracy operations and cybersecurity as well as by exchanging information on regional situations.

With regard to Japan's relationship with the United Kingdom, the Memorandum on Defence Cooperation was signed in June 2012. Following this, the Agreement concerning the Transfer of Defence Equipment and Technology came into effect in July 2013 and the Japan-U.K. Information Security Agreement entered

into force in January 2014, leading to the development of a foundation for defense equipment and technology cooperation as well as information sharing between the two countries. At the Japan-U.K. summit meeting in May that year, the prime ministers of both countries agreed to hold a Japan-U.K. "2+2" Foreign and Defence Ministerial Meeting and begin negotiations on the ACSA in order to enhance bilateral cooperation in the security field.

In January 2017, the Japan-U.K. ACSA¹¹ was signed. After the approval by Japan's National Diet in April 2017, the ACSA entered into force in August. Relevant domestic laws were then developed. The effectuation of the Japan-U.K. ACSA enables the two countries to implement the mutual provision of supplies and services, such as water, food, fuel and transportation, between the SDF and the U.K. Armed Forces through unified procedures in bilateral exercises and large-scale disaster relief operations, further facilitating and strengthening the Japan-U.K. strategic partnership. Furthermore, the two countries started a formal negotiation for the Japan-U.K. Reciprocal Access Agreement in October 2021, and two ministers welcomed the agreement in principle in the Japan-U.K. summit meeting in May 2022. They affirmed that the agreement would further deepen Japan-U.K. security and defense cooperation by facilitating bilateral operations and exercises between the Japan Self-Defense Forces and U.K. military forces, and enable the two countries to make a further contribution to global peace and stability.

The Japan-U.K. Joint Declaration on Security Cooperation, issued during the Japan-U.K. summit meeting in August 2017, stipulated that the two countries agreed to develop an action plan with specific measures relating to bilateral security cooperation between the relevant authorities. At the Japan-U.K. summit meeting in January 2019, the leaders reaffirmed the above Declaration and reaffirmed that the bilateral relationship had entered the next phase.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In July 2021, Minister of Defense Kishi and the Rt. Hon. Wallace, Secretary of State for Defence held the Japan-U.K. Defense Ministerial Meeting. The two

¹¹ The ACSA applies to the following activities: (1) bilateral/multilateral exercises; (2) UN PKO; (3) internationally coordinated peace and security operations; (4) humanitarian international relief operations; (5) operations to cope with large-scale disasters; (6) rescue measures for or transportation of Japanese nationals and others overseas for their evacuation from overseas; (7) communication and coordination or other routine activities; and (8) any other activity in which the provision of supplies and services is permitted under the laws and regulations of the respective countries.

ministers shared the recognition that the SDF's bilateral training with the U.K. Carrier Strike Group and the strike group's visits to Japan indicate that the defense cooperation between Japan and the U.K., standing on a long history and tradition, has elevated to a "new level"; that the U.K.'s commitment to realize a FOIP is robust and irreversible; and that Japan-U.K. defense cooperation contributes not only to the security of Japan but also to securing the peace and stability of the Indo-Pacific region and the international community, while addressing global challenges.

The two ministers strongly condemned the launching of ballistic missiles by North Korea as a threat to the peace and stability of the region that violates UNSC resolutions, and shared the view that the repeated launches of ballistic missiles by North Korea thus far is a serious challenge to the international community as a whole. The ministers then reaffirmed their commitment to closely coordinating toward the complete, verifiable, and irreversible dismantlement (CVID) of all of North Korea's weapons of mass destruction and ballistic missiles of all ranges, including responding to illicit ship-to-ship transfers.

In September 2021, Jeremy Quin, Minister of State (Minister for Defence Procurement), visited the MOD and further deepened the relationship between Japan and the United Kingdom in terms of defense equipment and technology cooperation, which had elevated "new level" through the U.K. Carrier Strike Group's port call in Japan and multilateral exercises conducted that month.

The U.K. Carrier Strike Group led by aircraft carrier HMS "Queen Elizabeth" made port calls in Japan in August and September 2021. The U.K. aircraft carrier HMS Queen Elizabeth called at the U.S. base in Yokosuka, where Minister of Defense Kishi boarded the aircraft carrier, held a joint press conference onboard with the commander of U.K. Carrier Strike Group and the U.K.'s Ambassador to Japan, and confirmed that the defense cooperation between Japan and the U.K., standing on a long history and tradition, has elevated to a "new level."



Adm. Yamamura, Chief of Staff, MSDF, exchanging greetings with the Commander of United Kingdom Carrier Strike Group on the HMS "Queen Elizabeth"

c. Initiatives of Each Service

(a) Joint Staff

In July 2021, the Chief of Staff, Joint Staff held a video teleconference with General Sir Carter, Chief of Defence Staff, during which they agreed to take full advantage of the opportunities provided by the deployment of the U.K. Carrier Strike Group to the Indo-Pacific region and to proactively implement defense cooperation and training with the U.K. In August 2021, the GSDF, MSDF, and ASDF participated in Large-Scale Global Exercise 2021 (LSGE21) organized by the U.S. in the sea and airspace south of Okinawa in August that year, in order to improve their tactical capabilities and strengthen coordination with the U.S., the U.K., and the Netherlands, with whom Japan shares fundamental values and strategic interests. In October 2021, the Chief of Staff, Joint Staff again held a video teleconference with General Sir Carter, Chief of Defence Staff, during which they agreed to further strengthen cooperation between Japan and the U.K. to realize a FOIP.

(b) GSDF

In July 2021, the Chief of Staff, GSDF held a video teleconference with General Sir Carleton-Smith, Chief of the General Staff, to share their understanding of the security situation in the Indo-Pacific region. Furthermore, in January 2022, they exchanged views on regional situations of mutual interest to Japan and the U.K., signed a "roadmap for Japan-U.K. army-to-army cooperation," and agreed to promote defense



MOVIE: Japan-U.K. bilateral naval exercise with the CSG21

URL: <https://youtu.be/RbuH4gelAZO>

VOICE Dispatch of the U.K. Carrier Strike Group CSG21

Rear Admiral Steve Moorhouse

Director Force Generation, Royal Navy

Rear Admiral Fleet Air Arm, Navy Command Headquarters

There is nothing in a nation's arsenal that provides the reach, flexibility and responsiveness of a Carrier Strike Group – it is a true strategic capability and I had the honour to command the UK's inaugural CSG deployment in 2021.

Over 200 days at sea, the Task Group sailed in excess of 500,000 miles, completed more than 4700 hours of flying and exercised with over 40 different nations – the clearest demonstration possible of not just the array of global operations that such a Strike Group can deliver but also the international convening power of Carrier Strike operations. The success of the deployment was founded on the cooperation and integration that we achieved with our closest allies around the World – this deployment was international by design. No where was this more

true than the support that the UKCSG received from Japan.

The visit of HMS QUEEN ELIZABETH was the first Royal Navy aircraft carrier to visit Japan since 1997, six of my escorts visited ports in Japan and at sea we exercise underwater, on the surface and in the air – a perfect example of the closeness of our relationship. We must not take these relationships for granted though. They need constant attention if we are to ensure like minded nations remain aligned and able to operate seamlessly in upholding international norms and providing regional security and stability. The UK Carrier Strike Group deployment may now be complete but this isn't the end. It is simply the end of the beginning and heralds the start of a more enduring presence in the Indo-Pacific region and a desire across all elements of the UK military to be closely engaged with partners and allies in maintaining peace and deterring those who wish to disrupt and interfere with the Rules Based order.



HMS QUEEN ELIZABETH departs Portsmouth to commence the global FORTIS deployment May 2021.



The author onboard HMS QUEEN ELIZABETH during his time in Command of the FORTIS Carrier Strike Group.



The combat power of the UK Carrier Strike Group alongside international allies and with the Combined UK-US CWW in the overhead.

Ministry of Defence, UK

cooperation and exchanges in a systematic and phased manner.

(c) MSDF

In July 2021, the Chief of Staff, MSDF had a talk with Admiral Radakin, First Sea Lord and Chief of the Naval Staff, and confirmed that they will contribute to the realization of a FOIP and to international peace and stability by deepening the relationship between their navies.

Furthermore, the carrier strike group CSG21 of Royal Navy with aircraft carrier HMS Queen Elizabeth as the flag ship conducted bilateral naval training in the Gulf of Aden with the MSDF counter-piracy unit in July 2021. From August to September 2021, the MSDF and

ASDF conducted bilateral naval exercise Pacific Crown 21 four times in the waters around Japan from southern Okinawa to the eastern waters of Kanto region.¹² Subsequently, in October 2021, new Japan-U.S.-U.K.-Netherlands-Canada-New Zealand multilateral exercises were conducted with the participation of three U.S. and U.K. aircraft carriers, the MSDF destroyer JS Ise, and frigates from the Netherlands, Canada, and New Zealand, followed by the Japan-U.S.-Australia-U.K. multilateral exercise Maritime Partnership Exercise in the Bay of Bengal. In November of the same year, bilateral training was conducted with the MSDF counter-piracy unit in the Gulf of Aden. These exercises have concretized a “new level” of Japan-U.K. defense

¹² The four countries of Japan, the U.K., the U.S., and the Netherlands participated in this training. Canada also participated during the third and fourth times.

cooperation, demonstrating that the U.K.'s involvement is robust and irreversible, and that Japan-U.K. defense cooperation contributes not only to the security of Japan but also to ensuring the peace and stability of the Indo-Pacific region and the international community.

(d) ASDF

In August 2021, General Izutu, the Chief of Staff, ASDF, held a talk with Air Chief Marshal Sir Wigston, Chief of the Air Staff of Royal Air Force, during which he shared Japan's view on the state of defense cooperation in aviation and space. In September that year, as part of the "Pacific Crown 21" exercise with CSG21, ASDF's F-35A jets conducted bilateral training with the Royal Air Force's F-35B jets and other units to improve their tactical capabilities and strengthen cooperation with each country.

(2) France

a. Significance of Defense Cooperation and Exchanges with France

France is a major power that has influence not only in Europe and Africa, but also around the world. It is the only EU member state that maintains a constant military presence in the Indo-Pacific region, with territories across the Indian Ocean and the Pacific Ocean. It also historically has had a close relationship with Japan and is positioned as Japan's special partner.

The first Japan-France "2+2" Foreign and Defense Ministerial Meeting was held in Paris in January 2014, followed by the visit of then Minister of the Armed Forces Le Drian to Japan in July of the same year when the Statement of Intent to promote defense cooperation and exchanges was signed. Since then, Japan and France have held discussions on issues including international terrorism, maritime security, defense equipment and technology cooperation, Japan-France ACSA, bilateral training, cooperation in the space and maritime domains, and collaboration in capacity building in developing countries.

Japan-France Agreement on the Security of Information entered into force in October 2011, Japan-France Agreement concerning the Transfer of Defense Equipment and Technology entered into force in December 2016, and in July 2018, Japan-France ACSA was signed and entered into force in June 2019 after approval by Japan's National Diet in May 2019.

(b) Recent Major Achievements in Defense Cooperation and Exchanges

In January 2022, the sixth Japan-France "2+2" Meeting was held for the first time in about three years via a video teleconference. The four ministers welcomed the significant strengthening of Japan-France security and defense cooperation in recent years and shared the view on continuing to promote bilateral/multilateral training and exercises as well as defense equipment and technology cooperation between Japan and France, reflecting on the previous year's multilateral exercise with the GSDF and MSDF during the port call in Japan by the French training fleet "Jeanne d'Arc" and the participation of French vessels in response to illegal ship-to-ship transfers. The four ministers also instructed the administrative authorities to initiate discussions on a permanent framework to mutually improve administrative, policy-related, and legal procedures for bilateral operations and exercises between the SDF and the French Armed Forces. In addition, the four ministers confirmed that Japan and France will further strengthen involvement of the EU in the Indo-Pacific region while France holds the Presidency of the EU Council. Furthermore, the four ministers shared serious concerns about North Korea's advancing nuclear and missile development and the situation in the East and South China Seas, and shared the view to strongly oppose attempts to unilaterally change the status quo by force. They also affirmed the importance of peace and stability in the Taiwan Strait and shared the view to encourage the peaceful resolution of cross-Strait issues.

c. Initiatives of Each Service

(a) Joint Staff

In October 2021, the Chief of Staff, Joint Staff held a telephone conversation with General Burkhard, French Chief of the Defence Staff, in which they reaffirmed the results and significance of the current Japan-France defense cooperation and exchanges and agreed to advance Japan-France collaboration in all areas, including new domains.

The SDF has participated in the HA/DR exercise "Equateur" hosted by the French Armed Forces stationed in New Caledonia since 2015. In May 2021, taking advantage of the opportunity provided by the visit to Japan of the training fleet "Jeanne d'Arc," Japan, France, the U.S., and Australia conducted the multilateral ship-to-shore exercise "ARC 21." Through this exercise, the SDF aimed to improve its tactical capabilities in island



Gen. Yoshida, Chief of Staff, GSDF, in a video teleconference with the Chief of Staff of the French Army

defense, including landing training, and to deepen the cooperative relationship between the four countries that share a common vision of a FOIP.

(b) GSDF

In May 2021, the Chief of Staff, GSDF held a video teleconference with General Burkhard, Chief of Staff of the French Army. While highly commending the significance of the multilateral exercise “ARC 21,” the chiefs agreed to uphold and reinforce a FOIP by deepening Army-to-Army defense relations. In August 2021, the Chief of Staff, GSDF, held a video teleconference with General Schill, Chief of Staff of the French Army, who took office in July, during which they concurred to strengthen Japan-France Army-to-Army cooperation. Furthermore, during a February 2022 video teleconference, they exchanged views on regional situations of mutual interest to Japan and France, signed “Cooperation between the Ground Self-Defense Forces and the French Army,” and agreed to promote Japan-France defense cooperation and exchanges in a systematic and phased manner.

(c) MSDF

In May 2021, in addition to conducting Japan-France bilateral training around Okinawa, the Chief of Staff, MSDF held a video teleconference with Admiral Vandier, Chief of Staff of the French Navy, during which they confirmed the results of the multilateral exercise “ARC 21.” Furthermore, at the International Maritime Security Conference (IMSC) held in Singapore in July 2021, the Chief of Staff, MSDF had a talk with Admiral Vandier, Chief of Staff of the French Navy, during which they agreed to continue strengthening the relationship between their navies. In September 2021, destroyer JS Shiranui of IPD21 unit made a port call in New Caledonia and conducted the Japan-French

bilateral exercise Oguri-Verny. Furthermore, in March 2022, destroyer JS Kirisame conducted the second Japan-France bilateral naval exercise Oguri-Verny in the East China Sea with French frigate FS Vendémiaire to improve tactical skills and enhance cooperation.

(d) ASDF

In May 2021, the Chief of Staff, ASDF held a video teleconference with General Lavigne, Chief of Staff of the French Air and Space Force, during which they shared concerns about unilateral attempts to change the status quo by force and agreed to further evolve defense cooperation and exchanges between the French and Japanese air forces in the fields of aviation and space.

Furthermore, in November 2021, the Chief of Staff, ASDF held a talk with General Mille, Chief of Staff of the French Air and Space Force, during which they confirmed the importance of a free and open international order based on the rule of law and concurred to further promote defense cooperation and exchanges between their air forces.

In February 2022, the French Air Force participated in the HA/DR multilateral training during the multilateral exercise Cope North 22 based in Guam in order to improve overall coordination between the Japanese and French air forces. Subsequently, in March 2022, the ASDF participated as a first-time observer in the space exercise AsterX 2022 organized by the French Air and Space Force.

(3) Germany

a. Significance of Defense Cooperation and Exchanges with Germany

Germany is a partner country which Japan shares fundamental values and cooperates in addressing issues in the international community as a member of the G7 and other organizations. Germany is increasing its involvement in the Indo-Pacific region based on the Indo-Pacific Guidelines formulated in September 2020. With Germany, the Japan-Germany Agreement concerning the Transfer of Defense Equipment and Technology and the Japan-Germany Agreement on the Security of Information entered into force in July 2017 and March 2021, respectively. In addition, exchanges with Germany, including high-level exchanges, are progressing, such as the first Japan-Germany vice-minister strategic dialogue held in July 2017, when the Vice-Minister of Defense for International Affairs visited Germany, and the first Japan-Germany “2+2”



German navy frigate "Bayern" makes a port call in Japan



Gen. Yamazaki, Chief of Staff, Joint Staff, in a meeting with the Inspector General of the Bundeswehr

meeting held in April 2021.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In April 2021, the first Japan-Germany Foreign and Defense Ministers' Meeting ("2+2") was held in the format of a video teleconference in which the four ministers reaffirmed their intention to cooperate closely toward the realization of a FOIP. Japan welcomed Germany's growing engagement in the Indo-Pacific region, and raised the possibility of bilateral cooperation on the occasion of the deployment of the German Navy frigate, including bilateral/multilateral exercises as well as monitoring and surveillance activities against illicit ship-to-ship transfers by North Korea-related vessels. The four Ministers shared the view to continue to coordinate with each other on this matter. The four ministers welcomed the signing and entry into force of the Japan-Germany Agreement on the Security of Information, and shared the view to further promote bilateral security cooperation under this agreement, including cooperation in the field of defense equipment.

Furthermore, the four ministers shared serious concerns about attempts in the international community to unilaterally change the status quo by force, and concurred that it was important to uphold and reinforce a free and open international order based on the rule of law.

In June 2021, Minister of Defense Kishi held a video teleconference with Kramp-Karrenbauer, German Federal Minister of Defence. Regarding the deployment of a German Navy frigate to the Indo-Pacific region, the two ministers affirmed that they will coordinate in order to conduct bilateral trainings. They also discussed the possibility of Germany joining Japan for the first time in monitoring and surveillance activities against illicit ship-to-ship transfers by North Korea-related vessels on the occasion of the deployment of the German Navy frigate, and agreed to continue cooperating toward its realization. The ministers also mentioned to the speech made by Defense Minister Kishi in that month at the European Parliament Subcommittee on Security and Defence,¹³ and underscored the importance of Japan-Germany cooperation in order to solidify the commitments of the EU and European nations in the Indo-Pacific region.

In November 2021, the German Navy frigate FGS Bayern, which had been dispatched to the Indo-Pacific region, became the first German Navy vessel to call at a Japanese port in about 20 years. Minister of Defense Kishi took this opportunity to visit the vessel. Minister of Defense Kishi stated that the vessel's port call to Japan was of great significance in demonstrating Germany's commitment to actively contributing to peace and stability in the region, that it signified an important turning point in the promotion of upholding and reinforcing a FOIP, and that Japan will continue to actively contribute to peace and stability in the region by working together with Germany to uphold and reinforce a FOIP and address global issues.

In addition, from November to December that year, FGS Bayern became the first German warship to participate in warning and surveillance activities targeting illegal maritime activities, including illicit ship-to-ship transfers by North Korea-related vessels.

c. Initiatives of Each Service

On the occasion of the port call in Japan by the German

¹³ For Minister of Defense Kishi's speech, see the MOD website (https://www.mod.go.jp/j/approach/exchange/area/2021/20210617_eu-j.html)

Navy frigate FGS Bayern, the chiefs of each service held high-level exchanges.

(a) Joint Staff

In November 2021, the Chief of Staff, Joint Staff held talks with General Zorn, Chief of Defence of the German Armed Forces. The chiefs confirmed the results and significance of Japan-Germany bilateral training and the port call in Japan by the German Navy frigate FGS Bayern, and agreed to further strengthen Japan-Germany cooperation in order to realize a FOIP.

(b) GSDF

In November 2021 and January 2022, the Chief of Staff, GSDF held a video teleconference with Lieutenant General Mais, Inspector of the German Army, during which they exchanged views on future defense cooperation and exchanges and concurred to strengthen Army-to-Army cooperation.

(c) MSDF

In November 2021, the Chief of Staff, MSDF held talks with Vice Admiral Schönbach, Inspector of the Navy, who had visited Japan with General Zorn, Chief of Defence of the German Armed Forces. They welcomed the German Navy's involvement in the Indo-Pacific region and reaffirmed that the MSDF and the German Navy would strengthen cooperation through bilateral training to ensure peace and stability in the region and the international community and to achieve a FOIP.

In addition, from August 2021 to January 2022, the German Navy frigate FGS Bayern conducted a total of six bilateral training with MSDF destroyers in the Gulf of Aden, Indian Ocean, and waters around Japan to strengthen cooperation.

(d) ASDF

In November 2021, the Chief of Staff, ASDF held talks with Lieutenant General Gerhartz, Inspector of the Air Force. This was the first high-level meeting between the Chief of Staff, ASDF and Inspector of the Air Force in 18 years. Both sides welcomed the resumption of high-level talks, confirmed the importance of an international



A MSDF destroyer conducting the Japan-Canada Bilateral Naval Exercise "KAEDEx" with a Royal Canadian Navy frigate

order based on the principles of a FOIP, and agreed to intensely support Japan-Germany Air-to-Air defense cooperation and exchanges going forward, including those in the space domain.

(4) Canada

a. Significance of Defense Cooperation and Exchange with Canada

Japan and Canada are both G7 members, fellow Pacific nations, and strategic partners that share fundamental values. The relationship between Japanese and Canadian defense authorities has deepened dramatically over the past few years, as exemplified by the 2019 joint statement on defense cooperation, the entry into force of the Japan-Canada ACSA, the Japan-Canada bilateral exercise "KAEDEx" that has been conducted annually since 2017, and other multilateral exercises.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In June 2019, which marked the 90th anniversary of Japan-Canada diplomatic relations in Canada, then Defense Minister Iwaya held the first Japan-Canada Defense Ministerial Meeting in three years with Canadian Minister of National Defence Harjit Singh Sajjan. It was the first official visit to Japan by a Canadian Defence Minister in 13 years. After the meeting, the



MOVIE: Talisman Sabre 21

URL: https://youtu.be/ZzcSFM_T-Gk



MOVIE: Indo-Pacific Deployment 2021

URL: <https://youtu.be/lmoU2uiXGPA>



ministers announced a joint statement that serves as a concrete guideline for the promotion of future defense cooperation. This was the first joint statement to be issued by the defense authorities of Japan and Canada.

In April 2021, Minister of Defense Kishi held a video teleconference with Harjit Sajjan, Canadian Minister of National Defence, during which the ministers expressed serious concerns over China's Coast Guard Law. In December 2021, Minister of Defense Kishi held a video teleconference with Anita Anand, Canadian Minister of National Defence, and conveyed his congratulations on her appointment. Regarding the situation in the East China Sea and South China Sea, both ministers agreed to strongly oppose any attempts to unilaterally change the status quo by force and any actions that increase tensions, and concurred on sending a clear message that a free and open maritime order based on the rule of law is important. The ministers also shared the view that the situation in North Korea, including the repeated launches of ballistic missiles, was a serious issue for the international community as a whole, and confirmed their commitment to continue to cooperate in regards to North Korea, including in dealing with illicit ship-to-ship transfers. In March 2022, the Fifth Japan-Canada Foreign and Defense Vice Ministerial Meeting ("2+2") was held. The two sides discussed their respective foreign and defense policies and exchanged their views on regional affairs. Both sides welcomed the progress in their coordination on diplomatic/security policies, and confirmed that they will deepen existing coordination further.

The Canadian Armed Forces have continuously dispatched aircraft and naval vessels to conduct warning and surveillance activities targeting illicit ship-to-ship transfers by North Korean-related vessels since 2018. In 2021, the Royal Canadian Navy frigate HMCS Winnipeg and patrol aircraft were dispatched.

c. Initiatives of Each Service

(a) MSDF

In September 2021, while attending the International Seapower Symposium (ISS) organized by the U.S. Navy, the Chief of Staff, MSDF met with Vice-Admiral Baines, Commander of the Royal Canadian Navy, and reaffirmed the further strengthening of cooperation between the Japanese and Canadian navies. In November 2021, the destroyer JS "Jintsu" conducted Japan-Canada Bilateral Exercise "KADEX 21" with the Royal Canadian Navy frigate HMCS

Winnipeg in the South China Sea to improve tactical skills and strengthen cooperation. HMCS Winnipeg participated in the Pacific Crown 21 exercise conducted in September 2021, the Japan-U.S.-U.K.-Netherlands-Canada-New Zealand multilateral training conducted in October 2021, and the MSDF Field Training Exercises in November 2021. In addition, Japan-Australia-Canada multilateral training was conducted in April in the year with the Canadian Navy frigate HMCS Calgary, and in July that year, Japan and Canada participated in the multilateral exercise "Talisman Sabre" hosted by the U.S. and Australia.

(b) ASDF

In August and November 2021, the Chief of Staff, ASDF met with Lieutenant-General Meininger, Commander of the Royal Canadian Air Force, during which they concurred to further promote Japan-Canada Air-to-Air defense cooperation and exchanges, including in the space domain.

(5) New Zealand

a. Significance of Defense Cooperation and Exchanges with New Zealand

New Zealand is an important strategic cooperative partner that shares fundamental values with Japan. Cooperation with New Zealand is extremely important in promoting the vision of a FOIP, and the defense authorities of both countries are actively engaging in high-level exchanges, bilateral/multilateral training, and unit-to-unit exchanges.

In relation to New Zealand, a memorandum on defense cooperation and exchanges was signed in August 2013. During a summit meeting in July 2014, the two countries agreed to conduct studies on an ACSA. Furthermore, the two leaders announced in Japan-New Zealand summit meeting in April 2022 that they decided to launch formal negotiations for a bilateral information security agreement.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In April 2021, Minister of Defense Kishi held a video teleconference with Peeni Henare, New Zealand Minister of Defence, during which they concurred to continue vigorously promoting defense cooperation and exchanges to maintain and promote the principles of a FOIP. Both ministers expressed strong concerns over any unilateral attempts to escalate tensions in the East China Sea. They also expressed serious concerns



Minister of Defense Kishi in a telephone conversation with the Minister of Defence of New Zealand

regarding the situation in the South China Sea, and reiterated the importance of settling disputes by peaceful means in accordance with international law, in particular the United Nations Convention on the Law of the Sea (UNCLOS). Both ministers agreed to send a clear message that a free and open maritime order based on the rule of law is important. Both ministers also shared the view that the situation in North Korea, including the repeated launches of ballistic missiles, was a serious challenge for the international community as a whole, and they reaffirmed their commitment to continue to cooperate in regards to North Korea. Furthermore, the ministers welcomed the steady deepening of Japan-New Zealand defense cooperation and exchanges, exemplified, for instance, by the visit by the New Zealand Air Force patrol aircraft crew to the MSDF Kanoya Air Base, where an exchange was held with MSDF personnel who operated patrol aircraft. The ministers agreed to coordinate with each other in order to realize the first bilateral training between the two countries in the future. In addition, regarding warning and surveillance activities targeting illicit ship-to-ship transfers by North Korea-related vessels, the New Zealand Defence Force has continuously dispatched patrol aircraft since 2018, and has again dispatched patrol aircraft twice in 2021.

c. Initiatives of Each Service

(a) Joint Staff

In January 2022, the Chief of Staff, Joint Staff held a telephone conversation with Air Marshal Short, Chief of Defence Force, during which they reaffirmed that Japan and New Zealand would work in close coordination with the international community to provide assistance to the victims of the volcanic eruption that occurred in the Kingdom of Tonga that month.

(b) MSDF

In October 2021, a Royal New Zealand Navy frigate participated in Japan-U.S.-U.K.-Netherlands-Canada-New Zealand multilateral training conducted in the airspace southwest of Okinawa and the South China Sea.

(6) Netherlands

a. Significance of Defense Cooperation and Exchange with Netherlands

The Netherlands has a historical relationship with Japan that is over 400 years old, and is a strategic partner that shares fundamental values with Japan. With the Netherlands, then Netherlands Minister of Defence Hennis-Plasschaert visited Japan in December 2016 for a Japan-Netherlands defense ministerial meeting, where the two ministers signed a memorandum regarding defense cooperation and exchanges.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In September 2018, then Minister of Defense Onodera visited the Netherlands for the Japan-Netherlands Defense Ministerial Meeting with the Minister of Defence Ank Bijleveld. While the two ministers exchanged opinions on cooperation under the frameworks of the NATO and the European Union (EU), then Minister of Defense Onodera explained the situation of the illicit ship-to-ship transfers by North Korea and stressed the importance of implementing strict sanctions on these illicit practices under the UN Security Council Resolutions. It was agreed that the Netherlands would work closely with Japan regarding this matter, as a non-permanent member of the UN Security Council and the then chair of the UN Security Council Sanctions Committee on North Korea.

c. Initiatives of Each Service

(a) Joint Staff

In October 2020, the Chief of Staff, Joint Staff held a video teleconference with General Eichelsheim, Chief of Defence of the Netherlands Armed Forces, during which they agreed to strengthen cooperation between Japan and the Netherlands to realize a FOIP.

(b) MSDF

The Royal Netherlands Navy frigate HNLMS Evertsen, together with the U.K. Carrier Strike Group (CSG21), participated in the multilateral counter-piracy training conducted in July 2021 by the MSDF with the CSG21 vessel. HNLMS Evertsen participated in the Pacific

Crown 21 exercise from August to September 2021 and the Japan-U.S.-U.K.-Netherlands-Canada-New Zealand multilateral exercises in October 2021, and it made a port call in Japan in September that year.

(c) ASDF

In November 2021, the Chief of Staff, ASDF held a meeting with Lieutenant General Luyt, Commander of the Royal Netherlands Air Force, the first high-level meeting between the air forces of Japan and the Netherlands. They confirmed the importance of the international order based on the principles of a FOIP and concurred to intensely promote Japan-Netherlands Air-to-Air defense cooperation and exchanges.

(7) North Atlantic Treaty Organization (NATO)

a. Significance of Defense Cooperation and Exchanges with NATO

NATO is a partner that shares fundamental values and responsibility for global security challenges with Japan. When then Prime Minister Abe visited Europe in May 2014, he held a meeting with then NATO Secretary General Rasmussen at NATO Headquarters and signed the Individual Partnership and Cooperation Programme between Japan and NATO (IPCP)¹⁴ (revised in May 2018 and June 2020). Based on the IPCP, SDF personnel were dispatched to NATO Headquarters for the first time in December 2014 as part of the Japan-NATO cooperation in the field of women, peace and security. Furthermore, the MOD/SDF has participated in the annual meeting of the NATO Committee on Gender Perspectives (NCGP) since 2015. From December 2021, SDF personnel were dispatched to the NATO Headquarters International Military Staff, Cooperative Security Division (NHQIMSCS) as staff members for cooperation with international organizations/NGOs, where they have been involved in coordinating cooperation projects between NATO and the United Nations, African Union (AU), Organization for Security and Co-operation in Europe (OSCE), NGOs, and others.

The MOD also sent a liaison officer to the Supreme Headquarters Allied Powers Europe (SHAPE) in February 2017 and a liaison officer to the NATO Maritime Command (MARCOM) in June 2019. In July 2018, the Mission of Japan to the North Atlantic Treaty Organisation was established as an additional



Online presentation by Gen. Izutsu, Chief of Staff, ASDF, at a NATO Partners Air Commanders' Conference

role of the Embassy of Japan in Belgium. In the cyber field, since March 2019, a MOD official has been dispatched to the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE). In December 2019, Japan officially participated for the first time in the NATO cyber defense exercise “Cyber Coalition 2019” in Estonia. In April 2022, Japan participated in the cyber defense exercise “Locked Shields 2022” organized by the CCDCOE, forming a joint team with the United Kingdom.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In July 2020, then Minister of Defense Kono had a telephone conversation with H.E. Jens Stoltenberg, NATO Secretary General, during which they exchanged views on regional situations, including the East China Sea and the South China Sea. They shared the view that they strongly oppose unilateral attempts to change the status quo by coercion, and they agreed to vigorously promote Japan-NATO defense cooperation and exchanges to uphold and reinforce a FOIP by taking into consideration the revised IPCP.

c. Initiatives of Each Service

(a) Joint Staff

In April 2021, the Chief of Staff, Joint Staff held a video teleconference with Air Chief Marshal Sir Stuart Peach, Chair of the NATO Military Committee, during which they agreed on the importance of cooperation in the framework of Japan-NATO defense exchanges and that they will explore new opportunities for cooperation in order to uphold an international order based on the rule of law. Following this, in October 2021, the Chief

¹⁴ The IPCP stipulates the promotion of cooperation, such as enhancing high-level dialogue and promoting defense cooperation and exchanges, with the aim of further developing cooperation between Japan and NATO, and specifies priority areas for working level cooperation. The IPCP was revised again in June 2020, adding “human security” as a priority area for working level cooperation.

of Staff, Joint Staff held a video teleconference with Admiral Bauer, Chair of the NATO Military Committee, and discussed strengthening cooperation between Japan and NATO.

(b) ASDF

In October 2021, the Chief of Staff, ASDF participated in an online meeting of NATO partner air force commanders, during which he shared the importance of the Indo-Pacific region and its security challenges, as well as Japan's efforts to achieve a FOIP and the importance of cooperation with NATO and partner countries.

(8) Ukraine

a. Significance of Defense Cooperation and Exchange with Ukraine

Ukraine is a partner that shares fundamental values such as freedom, democracy, and the rule of law with Japan. With Ukraine, during Ukrainian Deputy Minister of Defence Anatolii Petrenko's visit to Japan in October 2018, Japan signed a memorandum on defense cooperation and exchanges and held the Japan-Ukraine Security Meeting.

b. Recent Major Achievements in Defense Cooperation and Exchanges

Japan has been providing non-lethal equipment and goods such as bulletproof vests, protective masks, and protective clothing sequentially after March 2022 responding to the request from the Ukraine government after Russia's aggression against Ukraine. Also in March, Minister of Defense Kishi held his first video teleconference with Oleksii Reznikov, Minister of Defence of Ukraine. Minister of Defence Reznikov expressed deep appreciation for the provision of equipment and goods to Ukraine by the MOD/SDF. Minister of Defense Kishi offered his heartfelt condolences to Ukraine soldiers who died for the country and citizens killed in the aggression, and expressed his profound respect to the soldiers and citizens who are still fighting to protect their country and family members. And the minister stated again that Russia's aggression against Ukraine clearly undermined the sovereignty and territorial integrity of Ukraine, was a serious violation of international law and the Charter of the United Nations, which forbid the use of force, and was an unacceptable act, that such unilateral changes to the status quo by force shook the foundations of the international order, and that the Government of Japan

condemned Russia to the utmost degree.

c. Other

In April 2022, the government of Japan permitted 20 refugees from Ukraine who had difficulties making a passage to Japan by themselves despite their willingness to escape to Japan to take passage in the government plane returning Foreign Minister Hayashi, who visited Poland as an emissary of the prime minister, to Japan. Besides, a transport plane of the Air Self-Defense Force picked up humanitarian supplies stockpiled in Dubai by Office of the United Nations High Commissioner for Refugees (UNHCR) and transported them to Poland and Romania after May 2022, based on the Execution Plan for the International Peace Cooperation Activities Helping Ukrainian Victims decided by the Cabinet in April that year.

 See Part IV, Chapter 4, Section 5-3-1(5) (Ukraine)

(9) Poland

a. Significance of Defense Cooperation and Exchanges with Poland

Poland is a strategic partner that promotes universal values together with Japan. Cooperation with Poland is being advanced in accordance with the "Action Plan for the Implementation of the Strategic Partnership," including in the areas of politics and security.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In February 2022, Minister of Defense Kishi signed the Japan-Poland Memorandum on Defense Cooperation and Exchanges with Mariusz Błaszczak, Minister of National Defence of Poland, and also held the first video teleconference between the defense ministers of Japan and Poland in approximately nine years. During the teleconference, the two ministers confirmed that Japan and Poland would further deepen defense cooperation and exchanges based on the memorandum. Furthermore, in response to the situation in Ukraine, Minister of Defense Kishi voiced Japan's position of consistently supporting Ukraine's sovereignty and territorial integrity. Both countries shared the view that the issue of the situation in Ukraine is a global challenge that impacts the international community as a whole, and that it is a serious issue that cannot be overlooked by both Japan and Poland. Regarding the Indo-Pacific region, the two ministers expressed opposition to any attempts to unilaterally change the status quo by force or any activities that escalate tensions in the South

China Sea and East China Sea, and concurred on the importance of a free and open maritime order based on the rule of law. In addition, Minister Błaszczak expressed strong support towards a FOIP. Japan also received support from Poland when it provided the Ukrainian government with non-lethal equipment and goods from March 2022, including assistance in transporting the items through Polish airports.

(10) EU

a. Significance of Defense Cooperation and Exchanges with the EU

Japan shares fundamental values such as freedom, democracy, and the rule of law with the EU. Since the provisional application of the Japan-EU Economic Partnership Agreement began in 2019, Japan and the EU have been steadily expanding cooperation in the fields of security and defense. While the EU strengthens its involvement in the Indo-Pacific region, such as with the announcement of the Joint Communication on the EU Strategy for Cooperation in the Indo-Pacific in September 2021, the MOD/SDF is actively and independently advancing cooperation to ensure that the EU's commitment to the region is irreversible.

b. Recent Major Achievements in Defense Cooperation and Exchanges

With the EU, in February 2020, at the 56th Munich Security Conference, then Minister of Defense Kono held talks with EU High Representative Borrell, where they welcomed that cooperation is advancing especially in the field of maritime security, and shared the view that they would continue to promote concrete defense cooperation and exchanges. They exchanged views on issues such as security situations in the Indo-Pacific region.

In addition, at the Japan-EU summit meeting held in May 2021, both sides agreed to enhance cooperation for a FOIP. They exchanged views on the situation in the East and South China Seas, and shared the view to strongly oppose unilateral attempts to change the status quo. They also underscored the importance of peace and stability across the Taiwan Strait, and concurred to encourage the peaceful resolution of cross-strait issues. In June 2021, Minister of Defense Kishi delivered a speech to the European Parliament Subcommittee



Minister of Defense Kishi gives a speech to the Subcommittee on Security and Defence of the European Parliament

on Security and Defence¹⁵ in which he explained the realities of regional security and the principles of a FOIP that Japan is promoting.

c. Initiatives of Each Service

Since 2014, multilateral counter-piracy training has been conducted between the MSDF and the EU Naval Force engaged in Operation ATALANTA off the coast of Somalia. In May 2021, an MSDF destroyer and the EU Naval Force (Italian Navy and Spanish Navy) conducted multilateral training in the Gulf of Aden with the Djiboutian Navy and its coast guard force, confirming the continued commitment of Japan, the EU, and Djibouti to maintaining a rules-based international order.

(11) Italy

a. Significance of Defense Cooperation and Exchange with Italy

Both Italy and Japan are G7 member countries, and Italy is an important partner that shares fundamental values with Japan. The Japan-Italy Information Security Agreement entered into force in June 2016. The two countries have been promoting institutional development for facilitating defense cooperation and exchanges, including the Agreement concerning the Transfer of the Defence Equipment and Technology in April 2019, as well as the signing of the Memorandum on defense cooperation and exchanges in May 2017.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In May 2020, then Minister of Defense Kono had a telephone conversation with Italian Minister of Defence

¹⁵ For Minister of Defense Kishi's speech at the European Parliament Subcommittee on Security and Defence, see the MOD website (https://www.mod.go.jp/j/approach/exchange/area/2021/20210617_eu-j.pdf)



Signing of the agreement on commissioned training for ASDF pilots in the Italian Air Force

Lorenzo Guerini. The ministers agreed they strongly oppose any attempts to unilaterally change the status quo by coercion. Moreover, the year of 2020 marked the 100th anniversary of the first over-flight from Rome to Tokyo, and both ministers welcomed the advancement of cooperation made between the two Air Forces and also agreed to vigorously promote defense cooperation and exchanges to uphold and reinforce FOIP. They also expressed their intention to further expand cooperation in the future, including in the field of defense equipment and technology cooperation.

c. Initiatives of Each Service

(a) MSDF

In May and September in 2021, the Deployment Surface Force for Counter Piracy Enforcement (DSPE) conducted multilateral training in the Gulf of Aden with EU Naval Force including an Italian Navy frigate in order to strengthen the MSDF's counter-piracy capabilities and cooperation in counter-piracy operations.

(b) ASDF

In August 2021, the Chief of Staff, ASDF held a meeting with Lieutenant General Rosso, Chief of Staff of the Italian Air Force, to mutually confirm the progress of Japan-Italy defense cooperation and exchanges. In October, the ASDF concluded an agreement with the Italian Air Force on commissioned training of ASDF pilots, for the purpose of promoting the effective training of fighter pilots and other personnel and defense exchanges with the Italian Air Force. In January 2022, the ASDF began dispatching personnel to the International Flight Training School (IFTS), the Italian Air Force's educational institution.

(12) Spain

a. Significance of Defense Cooperation and Exchanges with Spain

Spain is a strategic partner that shares fundamental values with Japan. The two countries have agreed to further enhance the relationship between their defense authorities based on the memorandum on defense cooperation and exchanges signed in November 2014.

b. Recent Major Achievements in Defense Cooperation and Exchanges

With Spain, then Spanish Defense Minister De Cospedal visited Japan in January 2018 to hold the Japan-Spain Defense Ministerial Meeting. During the meeting, Defense Minister De Cospedal expressed that he welcomed a FOIP.

c. Initiatives of Each Service

In October 2021, the MSDF's Deployment Surface Force for Counter Piracy Enforcement (DSPE) conducted multilateral training in the Gulf of Aden with EU Naval Force including a Spanish Navy frigate in order to improve the MSDF's tactical capabilities and strengthen cooperation with the EU Naval Force.

(13) Estonia

a. Significance of Defense Cooperation and Exchanges with Estonia

Estonia is a partner that shares fundamental values with Japan. Estonia is implementing advanced initiatives as one of the world's leading IT countries, and cooperation with the MOD/SDF is progressing in the field of cyber defense. Besides, Estonia takes an important role in the view of Japan-NATO cooperation including hosting the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE) in the country.

b. Recent Major Achievements in Defense Cooperation and Exchanges

With Estonia, in September 2018, then Estonian Minister of Defence Jüri Luik visited Japan for the bilateral Defense Ministerial Meeting. Based on what was discussed during then Prime Minister Abe's visit to Estonia in January 2018, Japan and Estonia agreed to deepen cooperation in the cybersecurity field through bilateral and multilateral frameworks, which includes the dispatch of Japanese MOD officials to the CCDCOE.

(14) Finland

a. Significance of Defense Cooperation and Exchanges with Finland

Finland is a strategic partner that shares universal values with Japan. In February 2019, then Minister of Defense Iwaya signed a memorandum of understanding on Japan-Finland defense cooperation and exchanges with then Minister of Defence Niinistö.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In August 2020, then Minister of Defense Kono held a video teleconference with Minister of Defence Kaikkonen, in which they expressed to vigorously promote defense cooperation and exchanges to uphold and reinforce a FOIP, taking into consideration the implications of COVID-19.

(15) Denmark

a. Significance of Defense Cooperation and Exchanges with Denmark

Denmark is a strategic partner that shares fundamental values with Japan.

b. Recent Major Achievements in Defense Cooperation and Exchanges

With Denmark, then Defense Minister Kono held a telephone conversation with Defense Minister Bramsen in October 2019, where they exchanged views on bilateral defense exchanges and the security situation surrounding both countries. In addition, Defense Minister Kono explained the SDF's information gathering activities to ensure the safety of Japan-related vessels in the Middle East.

6 China

(1) Significance of Defense Cooperation and Exchanges with China

A stable relation between Japan and China is an essential factor for the peace and stability of the Indo-Pacific region. From broad and medium- to long-term perspectives, it is necessary for both countries to strive to build and enhance the “Mutually Beneficial Relationship Based on Common Strategic Interests with China” in all areas, including security.

In the security field, in order to enhance mutual understanding and trust, the MOD/SDF will promote multilayered dialogues and exchanges with China. In doing so, Japan conveys its candid concerns about the



Minister of Defense Kishi holding a video teleconference with Chinese State Councilor and Minister of National Defense Wei Fenghe

situation in the East China Sea, including the waters around the Senkaku Islands, and continues to encourage China to play a responsible and constructive role for peace and stability in the Indo-Pacific region, comply with international norms of conduct, and improve transparency regarding defense policy and military capability, so as to strongly urge China to dispel concerns of the international community, including Japan. Moreover, in order to avoid unexpected situations, Japan will utilize the Maritime and Aerial Communication Mechanism between the Defense Authorities of Japan and China in a manner that contributes to building a trusting relationship between the two countries.

(2) Recent Major Achievements in Defense Cooperation and Exchanges

Japan-China defense exchanges stagnated following the Japanese Government's acquisition of ownership of the three Senkaku Islands (Uotsurijima Island, Kitakojima Island, and Minamikojima Island) in September 2012, but have gradually resumed since the latter half of 2014.

In December 2021, Minister of Defense Kishi held a video teleconference with State Councilor and Defense Minister Wei Fenghe, the first such teleconference in about a year. The two ministers exchanged views on Japan-China relations and regional affairs. Minister Kishi conveyed Japan's grave concerns and opposition to attempts to unilaterally change the status quo by force while pointing out specific incidents such as activities by vessels belonging to the Chinese military and China Coast Guard in the East China Sea, including the waters surrounding the Senkaku Islands, and urged self-restraint from China. Minister Kishi also touched on the situation in Taiwan, stating that peace and

stability in the Taiwan Strait are extremely important not only for Japan's security, but also for the stability of the international community, and that Japan will continue to closely monitor related developments. Furthermore, regarding issues in the South China Sea, Minister Kishi conveyed Japan's strong opposition to attempts to unilaterally change the status quo by force and any actions that could escalate tensions, as well as Japan's serious concerns about the China Coast Guard Law that went into effect in February that year. He also communicated strong concerns about the lack of transparency in China's defense spending increases and the modernization and buildup of its military forces. Finally, the two ministers reconfirmed the importance of the prompt establishment of a hotline between Japanese and Chinese defense authorities in order to improve the efficacy of the "Maritime and Aerial Communication Mechanism between Defense Authorities of Japan and China," and concurred that the ministers would continue to exercise strong leadership with the goal of launching operations by the end of 2022.

In December 2021, the 13th round of Japan-China high-level consultations on maritime affairs was held, during which Japan reiterated its position and concerns regarding issues in the fields of maritime security, including the East China Sea, and urged China to exercise self-restraint in its actions.

(3) Initiatives of Each Service

As for service-to-service exchanges, in April 2019, Destroyer JS "Suzutsuki" visited China, as the first MSDF ship to do so in about seven and a half years, and participated in the International Fleet Review held by China to commemorate the 70th anniversary of the founding of the Chinese People's Liberation Army Navy. In the same month, the Chief of Staff, MSDF, who visited China for the first time in about five and a half years, attended a high-level symposium held on the sideline of the Fleet Review. On this occasion, the Chief of Staff, MSDF, conveyed the importance of free and open seas. Following this, in October 2019, the Chinese navy guided-missile destroyer "Taiyuan" became the first Chinese naval vessel to visit Japan in about 10 years, and conducted the third goodwill exercise with an SDF destroyer, which was the first time in about eight years.

As for unit-to-unit exchanges, a delegation from the Eastern Theater Command, headed by the deputy commander, visited Japan in November 2018, followed by a delegation from the SDF, led by the Western Army commanding General, visiting the Eastern Theater Command and other areas in November 2019. In 2018, the Japan-China field-grade officer exchange program hosted by Japan's Sasakawa Peace Foundation was held for the first time in six years. In April 2018 and September 2019, the Chinese delegation consisting of field-grade officers of the People's Liberation Army visited Japan, and in addition, the Japanese delegation consisting of field-grade officers of the SDF visited China in September 2018 and April 2019. The Japanese delegate paid courtesy calls to important persons and visited military units etc. In October 2021, the Japan-China field officer-level online exchange was held with the participation of 14 field officers from the MOD/SDF on the Japanese side and 14 officers from the Office for International Military Cooperation of the Central Military Commission and the People's Liberation Army on the Chinese side.

(4) Maritime and Aerial Communication Mechanism between the Defense Authorities of Japan and China

At Japan-China summit meetings in January and April in 2007, then Japanese Prime Minister Abe and then Chinese Premier Wen Jiabao agreed to develop a mechanism for communications, particularly maritime communications, between the two countries' defense authorities. Based on the agreement, their defense authorities held the first Joint Working Group Meeting on the mechanism in April 2008 and accumulated talks. From the fourth Joint Working Group Meeting in January 2015, diplomatic authorities of both countries joined the negotiations.

After the eighth meeting of the Japan-China High-Level Consultation on Maritime Affairs in December 2017 and the seventh Joint Working Group Meeting in April 2018, Japanese and Chinese defense authorities signed the memorandum on the mechanism¹⁶ in the presence of then Japanese Prime Minister Abe and Chinese Premier Li Keqiang on the occasion of the Japan-China summit meeting in Tokyo in May 2018, and the operation of this mechanism commenced on

¹⁶ Official title: Memorandum on the Maritime and Aerial Communication Mechanism between the Japanese Ministry of Defense and the Chinese Ministry of National Defense

June 8, 2018.

The “Maritime and Aerial Communication Mechanism between the Defense Authorities of Japan and China” has been developed (1) to promote mutual understanding and confidence between Japan and China and to enhance bilateral defense cooperation and exchange; (2) to avoid unexpected collisions; and (3) to prevent unforeseen circumstances in the sea and air from developing into military clashes or political or diplomatic issues. The mechanism’s main components include (1) annual and expert meetings between the two countries’ defense authorities; (2) a hotline between Japanese and Chinese defense authorities; and (3) on scene communication measures between vessels and aircraft of the SDF and the People’s Liberation Army.

Under the mechanism, the first annual and expert meetings were held between the defense authorities in December 2018. Most recently, the third annual and expert meetings were held in March 2021. The MOD/SDF will continue to communicate with China in order to clearly convey Japan’s candid concerns, taking into consideration the current situation of various concerns, while promoting defense exchanges and fostering mutual understanding and trust between the Japanese and Chinese defense authorities, and will respond calmly and resolutely in order to firmly protect Japan’s territory, territorial waters, and airspace.

See Reference 42 (Recent Defense Cooperation and Exchanges with China (Past Three Years))

7 Russia

(1) Significance of Defense Cooperation and Exchange with Russia

The Government of Japan handles the relationship with Russia appropriately while emphasizing the solidarity of the G7 and taking the Ukrainian situation into account. At the same time, it is also necessary to maintain the minimum essential contacts with Russia, as it is one of Japan’s neighbors, in order to avoid unforeseen circumstances or unnecessary conflicts. The Russian invasion of Ukraine that took place in February 2022 clearly undermines the sovereignty and territorial integrity of Ukraine, is a serious violation of international law and the Charter of the United Nations, which forbid the use of force, and is an unacceptable act. Such unilateral changes to the status quo by force shake the foundations of the international order, and on



JPIDD

this basis the Government of Japan condemns Russia to the utmost degree.

See Reference 43 (Recent Defense Cooperation and Exchanges with Russia (Past Three Years))

8 Pacific Island Countries

(1) Significance of Defense Cooperation and Exchanges with Pacific Island Countries

Pacific Island countries are important countries that share the importance of a free, open, and sustainable maritime order based on the rule of law as maritime nations, as well as bear strong historical relationships with Japan. At the eighth Pacific Alliance Leaders Meeting (PALM8) held in 2018, Japan expressed its intention to strengthen its commitment to the stability and prosperity of the region. In addition, the NDPG published in the same year referred for the first time to Japan’s intention to promote cooperation and exchanges with Pacific Island countries.

(2) Recent Major Achievements in Defense Cooperation and Exchanges

In June and August 2020, then Minister of Defense Kono held telephone conversations with the defense ministers of three Pacific island countries that have armed forces, namely Fiji, Papua New Guinea (PNG), and Tonga. At each meeting, the ministers exchanged views taking into consideration the implications of COVID-19, and agreed to continue communication between defense authorities, and to continue to strongly promote defense cooperation and exchanges between their respective countries toward upholding and reinforcing FOIP.

In September 2021, the MOD held the Japan Pacific Islands Defense Dialogue (JPIDD) in an online format.

VOICE The first multilateral defense ministers' meeting hosted by the Ministry of Defense (the MOD) and the voices of personnel who supported it

Indo-Pacific Regional Policy Division, Defense Policy Bureau, Internal Bureau

Defense Administrative Official TSUKASAKI Hitomi

I have been in charge of defense exchanges with Pacific Island countries since April 2020. Japan and Pacific Island countries are together part of the Blue Pacific continent, and they have incredibly important relationships with one other and deep historical ties. In recent years, the Ministry of Defense (MOD) has been strengthening relations with Pacific Island countries, and in September 2021, the MOD hosted the Japan Pacific Islands Defense Dialogue (JPIDD) in an online format. This was the first ever multilateral defense ministerial dialogue hosted by the MOD.

We coordinated extensively with participating countries (20 including Japan) prior to the event. In particular, we struggled with how difficult it was to compile the various opinions of participating countries when adopting the Joint Statement,

which is an outcome document. Moreover, we had difficulties on the day that are specific to online events, including having to check online connectivity with participating countries right up to the start of the dialogue. However, even amid the spread of COVID-19, high-level officials from many countries were able to actively exchange opinions on common challenges, including maritime security and climate change. I am incredibly happy to have organized a memorable first JPIDD, and would also like to use this column to express my deepest gratitude to all the countries that cooperated in realizing the dialogue.

On this occasion, the first JPIDD added a great burst of momentum to the strengthening of relations between Japan and Pacific Island countries. I look forward to the bonds being strengthened even further through continued discussions at JPIDD.



A scene from JPIDD (the author is at the back in the upper right)



Minister of Defense KISHI Nobuo, who chaired the JPIDD

This was the first-ever multilateral defense ministerial dialogue to be hosted by the MOD. Minister of Defense Kishi chaired the dialogue, which was attended by defense minister-level officials from Fiji, PNG, and Tonga.¹⁷ At the dialogue, the attendees exchanged views on a Free and Open Indo-Pacific (FOIP), maritime security, climate change and HA/DR, and response to COVID-19. As an outcome of the discussions, the Japan Pacific Islands Defense Dialogue Joint Statement was adopted.¹⁸

(3) Initiatives of Each Service

a. Joint Staff

In February 2022, the Chief of Staff, Joint Staff held a telephone conversation with Brigadier Lord Fielakepa, Chief of Defense Staff of His Majesty's Armed Forces of Tonga, to convey condolences to the Kingdom of Tonga for the damage caused by the eruption of the Hunga Tonga–Hunga Ha'apai volcano in January 2022, and to exchange views regarding the SDF's relief activities. Also in February 2022, the Chief of Staff, Joint Staff held a telephone conversation with Major General

¹⁷ The dialogue was also attended by representatives from Australia, Canada, the Cook Islands, France, the Federated States of Micronesia, the Republic of Kiribati, the Republic of the Marshall Islands, the Republic of Nauru, New Zealand, Niue, the Republic of Palau, Solomon Islands, Tuvalu, the U.K., the U.S., and Vanuatu.

¹⁸ For the Japan Pacific Islands Defense Dialogue (JPIDD) Joint Statement, see the MOD website (https://www.mod.go.jp/j/approach/exchange/dialogue/jpidd/20210902_j-jpidd.html)

Kalouniwai, Commander of the Republic of Fiji Military Forces, during which they exchanged views on the state of assistance to the victims of the volcanic eruption in the Kingdom of Tonga, and confirmed that the SDF and Republic of Fiji Military Forces will continue to cooperate through defense cooperation and exchanges in order to achieve a FOIP.

b. GSDF

With PNG, since 2015, the GSDF Central Band has cooperated and strengthened the bilateral relationship with PNG with regard to establishing and training a military band through a capacity building program. Following the provision of musical instruments to PNG through Official Development Assistance (ODA) in 2017 and capacity building by the MOD, the band gave an excellent performance on the occasion of the Asia-Pacific Economic Cooperation (APEC) in PNG in front of the national leaders in November 2018. In September 2021, the GSDF Central Band again provided technical guidance on performance and instrument maintenance in Port Moresby.

c. MSDF

In July 2021, the MSDF destroyer JS “Makinami” made a port call in Port Moresby. In September 2021, MSDF IPD21 unit destroyers made a port call in Palau, delivered 75 judo uniforms as part of an interministerial cooperation project with the Ministry of Foreign Affairs, and conducted a Japan-Palau goodwill exercise. Also in September, the unit conducted a Japan-Vanuatu goodwill exercise with the Vanuatu Police Maritime Wing. In addition, in October 2021, the MSDF Overseas Training Cruise units made a port call in the Marshall Islands.

d. ASDF

Since 2015, the ASDF has participated in the Multilateral Humanitarian Assistance and Disaster Relief Exercise “Christmas Drop” in the Federated States of Micronesia. In the airdrop exercises, the ASDF has also dropped various donations to the Federated States of Micronesia, the Republic of Palau, and the Northern Mariana Islands.

See Reference 44 (Recent Defense Cooperation and Exchanges with Pacific Island Countries (Past Three Years))

9 Middle Eastern Countries

(1) Significance of Defense Cooperation and Exchanges with Middle Eastern Countries

Since peace and stability in the Middle East are extremely important for the peace and prosperity of the



ASDF Chief of Staff Izutsu providing an explanation about C-2 transport aircraft as he participated in the Dubai Airshow

international community, including Japan, the MOD/SDF has been promoting high-level exchanges and unit-to-unit exchanges in order to build and strengthen cooperative relationships with countries in the region. Among its recent initiatives, the MOD/SDF conducted the FY2021 Indo-Pacific and Middle East Deployment (IMED) from December 2021 to April 2022 involving MSDF minesweepers, demonstrating Japan’s deep commitment to the stability and prosperity of the region.

See Part IV, Chapter 1, Section 1-2-1 (2) (Middle East Deployment (IMED21))

(2) UAE

a. Recent Major Achievements in Defense Cooperation and Exchanges

With the United Arab Emirates (UAE), Japan and the UAE signed a memorandum on defense exchanges in May 2018, and held a meeting between defense authorities in December 2018.

In January 2020, then Prime Minister Abe visited the UAE and met Crown Prince of Abu Dhabi Mohammed to exchange views and explain Japan’s efforts to ensure the safety of navigation of Japan-related vessels in the Middle East, gaining his support for such efforts. In November 2021, Minister of Defense Kishi held a video teleconference with H.E. Al Bowardi, Minister of State for Defence Affairs. The ministers concurred to promote bilateral defense cooperation and exchanges while continuing close communication to ensure peace and stability as well as safe navigation of vessels in the Middle East.

b. Initiatives of Each Service

(a) Joint Staff

In June 2019, the Chief of Staff, Joint Staff visited

the UAE as the first successive Chief of Staff, Joint Staff to do so, and paid a courtesy call on H.H. Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi. In July 2020 and March 2021, the Chief of Staff, Joint Staff held a video teleconference with Lieutenant General Hamad Mohammed Thani Al Rumaithi, Chief of Staff of the UAE Armed Forces, during which they agreed to continue working together to address common challenges for the sake of peace and stability in the international community and the region.

(b) ASDF

In November 2021, the Chief of Staff, ASDF participated in the Dubai International Air Chiefs' Conference hosted by the United Arab Emirates Air Force and the Dubai Airshow, on which occasion he paid a courtesy call on H.E. Mohammed bin Ahmed Al Bowardi, Minister of State for Defence Affairs, and met with Major General Staff Pilot Ibrahim Nasser M. Al-Alawi, Commander of the UAE Air Force. Also in November, the ASDF transport aircraft C-2 participated in the air show, as in 2019. During Japan's participation in the air show, the bilateral defense relationship continued to deepen, and Air Force Commander Al-Alawi toured the dispatched ASDF transport aircraft C-2.

(3) Israel

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Israel, Japan and Israel held the second politico-military dialogue via video teleconference in January 2021, following the first such dialogue in October 2018, and exchanged opinions on a wide range of topics, from regional situations to security issues. In November 2018, the fourth Dialogue on Cyber Issues between Japan and Israel was held. In September 2019, the defense authorities signed the Memorandum on Protection of Information for the Exchange of Classified Information on Defense Equipment and Technology between the Ministry of Defense of Japan and the Ministry of Defense of the State of Israel. Through these efforts, Japan and Israel have strengthened their relationship in the security field.

b. Initiatives of Each Service

In June 2019, the Chief of Staff, Joint Staff, visited Israel for the first time as the Chief of Staff of Japan, and in June 2020, held a telephone conversation with Lieutenant General Rav Aluf Aviv Kochavi, the Chief of the General Staff. In November 2021, the Chief of

Staff, ASDF, met with Major General Amikam Norkin, Commander of the Israel Air Force, and other service-to-service exchanges are being promoted.

(4) Iran

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Iran, at the Japan-Iran summit meeting in December 2019, then Prime Minister Abe gave a detailed explanation of Japan's efforts to ensure the safety of the navigation of Japan-related vessels in the Middle East. In addition, in October 2019 and January 2020, then Defense Minister Kono held the first defense ministerial telephone conversation with Defense and Logistics Minister Hatami, in which the two ministers exchanged views on the regional situation and other issues. In February 2021, Minister of Defense Kishi held a video teleconference with Defense and Logistics Minister Hatami in which Minister Kishi explained the extension of the information gathering activities for ensuring the safe navigation of Japan-related vessels in the Middle East, and the two ministers concurred on continuing communication between the defense authorities of the two countries.

(5) Egypt

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Egypt, then State Minister of Defense Yamamoto visited Egypt in September 2017, marking the first visit to Egypt by one of the three political-level appointees of the MOD.

In June 2020, the Chief of Staff, Joint Staff, held a telephone conversation with then Lieutenant General Mahmoud Ibrahim Mahmoud Hegazy, Chief of Staff of the Egyptian Armed Forces, in which they reaffirmed the importance of promoting defense cooperation between the two countries.

(6) Oman

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Oman, in March 2019, Minister Responsible for Defense Affairs Sayyid Badr visited Japan and met then Minister of Defense Iwaya and signed a memorandum on defense exchanges. In December 2019, then Defense Minister Kono visited Oman for the first time as a defense minister and met with Minister Responsible

for Defense Affairs Badr. Both ministers confirmed to continue deepening defense cooperation and exchanges such as cooperation between the naval services under the FOIP vision. In January 2020, then Prime Minister Abe visited Oman to exchange views with King Haitham and directly briefed him on Japan's efforts to ensure the safety of navigation of Japan-related vessels in the Middle East, gaining his support for such efforts.

(7) Qatar

a. Recent Major Achievements in Defense Cooperation and Exchanges

Japan and Qatar signed a memorandum on defense exchanges in February 2015. In May 2019, Qatari Deputy Prime Minister and Minister of Defense Attiyah visited Japan and the first defense ministers meeting was held between Minister Attiyah and then Defense Minister Iwaya. In December 2019, then Defense Minister Kono attended the 19th Doha Forum hosted by Qatar for the first time as a defense minister and met with Deputy Prime Minister and Minister of State for Defense Affairs Attiyah. At the meeting, both Ministers welcomed that Japan-Qatar defense cooperation and exchanges are moving forward, and confirmed to continue deepening defense cooperation and exchanges in areas such as education and training.

b. Initiatives of Each Service

In October 2021, the Chief of Staff, Joint Staff, held a video teleconference with Lieutenant General Al-Ghanim of Qatar Air Force during which he expressed his gratitude for the logistic support provided by the Qatar Armed Forces when the SDF transported Japanese nationals and others in Afghanistan. They also agreed to strengthen bilateral cooperation through Japan-Qatar defense cooperation and exchanges in order to realize a FOIP.

(8) Saudi Arabia

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Saudi Arabia, Japan signed a memorandum on defense exchanges with Saudi Arabia in September 2016. In January 2020, then Prime Minister Abe visited Saudi Arabia and paid a courtesy call to King Salman and Crown Prince Mohammed. In September, then Minister of Defense Kono held telephone conversations with Crown Prince and Minister of Defense Mohammed. The two parties exchanged views on bilateral defense



Gen. Yamazaki, Chief of Staff, Joint Staff, in a video teleconference with the Chief of Staff of the Qatar Armed Forces

cooperation and exchanges, and current regional security issues. Defense Minister Kono also explained the SDF's information gathering activities to ensure the safety of Japan-related vessels in the Middle East.

In February 2021, Minister of Defense Kishi held a telephone conversation with H.R.H. Prince Khalid bin Salman, Deputy Minister of Defense, in which the two ministers concurred to promote defense cooperation and exchanges in the context of preventing the spread of infectious diseases, in light of the impact of the COVID-19 pandemic. They agreed to continue close communication for ensuring peace, stability and safe navigation of vessels in the Middle East.

(9) Turkey

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Turkey, Japan's then Administrative Vice-Minister of Defense signed a Statement of Intent to promote defense cooperation and exchanges with Turkey's then Undersecretary of the Ministry of National Defense Ümit Dündar in July 2012 during their talk. In July 2019, Defense Minister Akar accompanied the president to Japan for the G20 and held talks with then Minister of Defense Iwaya. In June 2019, then Commander of the Turkish Land Forces General Ümit Dündar visited Japan, held a meeting with the Chief of Staff, GSDF, and paid a courtesy call to the State-Minister of Defense of Japan.

(10) Bahrain

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Bahrain, then Defense Minister Kono held a telephone conversation with the Commander in Chief of Bahrain Defense Force Khalifa in October 2019, to exchange views on bilateral defense exchange and the situation in the Middle East. In November 2019, Defense

Minister Kono met with Commander Khalifa on the occasion of the 15th Manama Dialogue held in Bahrain. This was the first ministerial-level meeting between the defense authorities of the two countries. At the meeting, both sides agreed to continue high-level exchanges as well as exchanges of mainly naval services.

b. Initiatives of Each Service

In August 2020, the Chief of Staff, Joint Staff, held a video teleconference with Lieutenant General Theyab bin Saqer Al Noaimi, Chief of Staff, in which they exchanged views on defense exchanges between the two countries and efforts to prevent the spread of COVID-19. Furthermore, MSDF IMED21 unit made a port call in Bahrain, and took part in the international naval training IMX/CE22 organized by U.S. Navy in the sea and airspace surrounding Bahrain from January to February 2022.

(11) Jordan

a. Recent Major Achievements in Defense Cooperation and Exchanges

Between Japan and Jordan, a memorandum on defense cooperation and exchanges was signed when Jordanian King Abdullah II visited Japan in October 2016. In November 2018, the King visited Japan and welcomed the steady progress concerning the defense authorities' meetings and unit-to-unit exchanges during then Minister of Defense Iwaya's courtesy visit to him and during his visit to the GSDF units of Camp Narashino.

In addition, then Defense Minister Kono, who visited Jordan for the first time as defense minister in December 2019, met with Lieutenant General Yousef Huneiti, Chairman of the Joint Chiefs of Staff. During the meeting, Lt Gen Huneiti stated that bilateral defense exchanges are making progress such as the first politico-military dialogue being held for the first time in July 2019, and also stated that he would like to continue advancing cooperation in areas such as training and equipment. In response, Minister Kono stated that he would like to consider cooperation in the fields raised by Lt Gen Huneiti.

Furthermore, the third politico-military dialogue was held as a video teleconference in November 2021, following the second one in October 2020.

 **See** Reference 45 (Recent Defense Cooperation and Exchanges with Middle Eastern Countries (Past Three Years))

10 Asian Countries

(1) Sri Lanka

a. Significance of Defense Cooperation and Exchanges with Sri Lanka

Sri Lanka is an important country located at a key point on the sea lanes in the Indian Ocean. In recent years, Japan has strengthened bilateral defense cooperation and exchanges with Sri Lanka.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In August 2018, then Defense Minister Onodera made the first visit to Sri Lanka as a Defense Minister and held the first-ever Defense Ministerial Meeting between the two countries with then State Minister of Defence Ruwan Wijewardene. During the meeting, the ministers discussed maritime security and safety, and State Minister of Defence Wijewardene expressed the desire to enhance Sri Lanka's overall military capabilities by improving the HA/DR capabilities of its army, navy, and air force in the future. In response, Defense Minister Onodera indicated that Japan would support this.

In July 2019, then State Minister of Defense Harada visited Sri Lanka for a meeting with then State Minister of Defence Wijewardene and paid a courtesy call on then President and Minister of Defence Sirisena to share their views on the need to further strengthen the partnership between the maritime states of Sri Lanka and Japan to promote FOIP.

In July 2021, Minister of Defense Kishi held a video teleconference with President Rajapaksa (with authority over the Ministry of Defence), during which they welcomed the steady progress being made in a broad range of areas, including Navy-to-Navy and Air-to-Air cooperation. Minister of Defense Kishi expressed strong opposition to any unilateral attempts to change the status quo by force in the East China Sea and South China Sea, and both ministers concurred on sending a clear message that a free and open maritime order based on the rule of law is important.

c. Initiatives of Each Service

(a) MSDF

In June 2021, the MSDF destroyer JS "Yugiri" participated in the multilateral exercise "CARAT" organized by the U.S. and Sri Lanka in the waters off Trincomalee. Then, in October, the MSDF IPD21 unit conducted the Japan-Sri Lanka bilateral exercise "JA-LAN EX" in the vicinity of Colombo in order to

improve tactical capabilities and strengthen cooperation with the Sri Lanka Navy. In addition, Japan-Sri Lanka goodwill exercises were conducted in January 2022 by the MSDF IMED21 units in the waters off Trincomalee, and in February 2022 in the waters off Colombo, in order to improve tactical capabilities and promote mutual understanding between the navies.

(b) ASDF

As a form of capacity building for the Sri Lanka Air Force, in May 2015, the second air rescue seminar was conducted online for about seven Sri Lanka Air Force-related personnel. The seminar introduced the ASDF's capabilities and methods related to air search and rescue.

(2) Pakistan

a. Significance of Defense Cooperation and Exchanges with Pakistan

Located at the junction of South Asia, the Middle East, and Central Asia, Pakistan is an important state for stability in the Indo-Pacific region, and it faces an important sea lane for Japan. Pakistan is a pro-Japanese country that has traditionally had a friendly relationship with Japan. Building on this relationship, the two countries have promoted defense cooperation and exchanges.

b. Recent Major Achievements in Defense Cooperation and Exchanges

Since 2004, Japan and Pakistan have conducted Director-General level dialogues on defense policy on a biennial basis. However, in June 2019, the two countries held Military-to-Military Talks for the second year in a row, in which they signed the Memorandum on Japan-Pakistan Defense Cooperation and Exchange. In June 2021, the two countries held the 11th Defense Policy Dialogue as a video teleconference. In August 2020, then Minister



Japan-Sri Lanka bilateral naval exercise "JA-LAN EX"

of Defense Kono held a video teleconference with Chief of Army Staff General Bajwa where the two ministers exchanged views on bilateral defense cooperation and exchanges, taking into consideration the implication of COVID-19.

c. Initiatives of Each Service

(a) MSDF

The MSDF participates in the multilateral naval exercise "AMAN" hosted by Pakistan and conducts educational exchanges. In addition, in July 2021, the MSDF destroyer JS "Yugiri" conducted a goodwill exercise with the Pakistan Navy in the waters off Karachi.

(b) ASDF

In November 2021, during the Dubai Airshow, the ASDF conducted unit-to-unit exchanges with the Pakistan Air Force, and encouraged mutual understanding and trust-building through the exchange of knowledge related to each other's participating aircraft.

(3) Bangladesh

a. Significance of Defense Cooperation and Exchanges with Bangladesh

Located at the junction of South Asia, the Middle East, and Central Asia, Bangladesh is an important state for stability in the Indo-Pacific region, and it faces an important sea lane for Japan.

b. Initiatives of Each Service

2022 marks the 50th anniversary of Japan's establishment of diplomatic relations with Bangladesh. In January 2022, the MSDF IMED21 units conducted a goodwill exercise with the Bangladesh Navy in the waters off Chittagong in order to improve tactical capabilities and promote mutual understanding between the navies.

(4) Mongolia

a. Significance of Defense Cooperation and Exchanges with Mongolia

Mongolia is an important partner that shares universal values with Japan, and the MOD/SDF is promoting defense cooperation and exchanges with Japan toward developing a "strategic partnership."

b. Recent Major Achievements in Defense Cooperation and Exchanges

In June 2020, then Minister of Defense Kono held a video teleconference with Minister of Defense Enkhbold to exchange views on regional security issues, including the East China Sea and South China Sea. By taking into consideration the implications of COVID-19, the two

ministers agreed to vigorously promote bilateral defense cooperation and exchanges to uphold and reinforce a FOIP.

As for capacity building, the MOD/SDF held an online seminar on military medicine related to HA/DR in August 2021. During the seminar, the MOD/SDF provided an overview of the training conducted by the SDF Central Hospital, and both countries shared their knowledge of infectious disease control, which deepened mutual understanding. In addition, from August to September that year, the MOD/SDF implemented a project to provide technical support for road construction and surveying in order to improve the capabilities of the Mongolian Ground Force engineer unit for deployment on PKO.

See Reference 46 (Recent Defense Cooperation and Exchanges with Asian Countries (Past Three Years))

11 African Countries

(1) Djibouti

a. Significance of Defense Cooperation and Exchange with Djibouti

Djibouti is an important country in terms of being the only country where the SDF has an overseas facility that is used to counter-piracy. The installation was used for transporting goods to the unit dispatched to the UNMISS. From November to December 2021, the installation was used as an office for SDF instructors that attended a training program for Djibouti's military engineers on the operation and maintenance of heavy machinery, which was conducted as part of Japan's disaster response capacity building for Djibouti.

b. Recent Major Achievements in Defense Cooperation and Exchanges

In December 2019, then Defense Minister Kono visited Djibouti and held a meeting with Defense Minister Burhan. At the meeting, the two ministers confirmed that they would continue to strengthen cooperation between the defense authorities in order to deepen bilateral defense cooperation and exchanges. Minister Kono also expressed his appreciation for the government's support for the operation of the SDF's installation in Djibouti, and explained the use of fixed-wing patrol aircraft of the SDF's counter-piracy unit based in Djibouti for information gathering activities to ensure the safety of Japanese vessels in the Middle East. In July 2021, as part of defense cooperation and exchanges with Djibouti,

Japan invited a civilian official from the Ministry of Defense of Djibouti (one person) to participate in a training program aimed at strengthening the secretariat function that supports the Minister of Defense.

Japan will work on the stable, long-term use of SDF overseas facility for security cooperation in the Middle East and Africa.

See Reference 47 (Recent Defense Cooperation and Exchanges with Other Countries (Past Three Years))

12 Latin American Countries

(1) Significance of Defense Cooperation and Exchanges with Latin American Countries

Many Latin American countries border the Pacific Ocean and share fundamental values with Japan, and Japan is promoting defense cooperation and exchanges with such countries.

(2) Colombia

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Colombia, in December 2016, Japan and Colombia signed a memorandum on defense exchanges.

(3) Brazil

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Brazil, in December 2020, Minister of Defense Kishi held the first Japan-Brazil Defense Ministers' Meeting online with Minister of Defense Fernando Azevedo e Silva. At the meeting, the two ministers signed a memorandum on Japan-Brazil defense cooperation and exchanges, and agreed to further develop defense cooperation and exchanges.

(4) Jamaica

a. Recent Major Achievements in Defense Cooperation and Exchanges

With Jamaica, in December 2019, Prime Minister and Defense Minister Holness visited Japan and met with then Defense Minister Kono.

(5) Chile

a. Initiatives of Each Service

In January 2021, the Chief of Staff, MSDF held a video teleconference with Admiral Julio Leiva Molina, Commander-in-Chief, to promote service-to-service

exchanges.

(6) Peru

a. Initiatives of Each Service

In November 2021, the MSDF destroyer JS “Abukuma” conducted a goodwill exercise in the East China Sea

with Peruvian Navy corvette BAP Guise to improve tactical capabilities and enhance mutual understanding between the navies. After the exercise, BAP Guise made a port call in Yokosuka Port.

 See Reference 47 (Recent Defense Cooperation and Exchanges with Other Countries (Past Three Years))

3 Promotion of Multilateral Security Cooperation

1 Multilateral Security Framework and Dialogue Initiatives

Multilateral framework initiatives, especially the ADMM-Plus and the ASEAN Regional Forum (ARF),¹⁹ have made steady progress and served as an important foundation for dialogue and cooperation and exchanges on the security of the Indo-Pacific. Japan places importance on such multilateral frameworks and is strengthening cooperation and mutual confidence with countries in the region while contributing to the enhancement of multilateral cooperation through various initiatives.

 See Reference 48 (Record of Major Multinational Security Dialogues (Indo-Pacific Region, Past Three Years))
Reference 49 (Multilateral Security Dialogues Hosted by the Ministry of Defense)
Reference 50 (Other Multilateral Security Dialogues)

(1) Initiatives under the ADMM-Plus

The ASEAN holds the ASEAN Defence Ministers’ Meeting (ADMM), a ministerial level meeting among defense authorities in the ASEAN region, and the ADMM-Plus, which includes eight other countries outside of ASEAN,²⁰ including Japan (so-called “Plus Countries”).

ADMM-Plus is an invaluable framework that brings together defense ministers from all ASEAN member states and Plus Countries to discuss security issues and defense cooperation and exchanges in the region and the international community. The MOD/SDF has been actively participating in and contributing to various



Minister of Defense Kishi participating via the internet in the 8th ADMM-Plus

initiatives under ADMM-Plus.

In June 2021, Minister of Defense Kishi attended the 8th ADMM-Plus held online. He stated that practical defense cooperation under the ADMM-Plus framework and Japan-ASEAN defense cooperation have both made steady progress and pointed out that there are continued attempts to change the status quo by force in the East China Sea and the South China Sea. He stressed that it is important for all concerned parties in the South China Sea to make efforts toward the peaceful resolution of disputes in accordance with international law, in particular the United Nations Convention on the Law of the Sea (UNCLOS).

There are (1) the ASEAN Defence Senior Officials’ Meeting (ADSOM)-Plus, (2) ADSOM-Plus Working Group (ADSOM-Plus WG), and (3) EWGs²¹ under the ministerial level ADMM-Plus. Currently, seven EWGs have been established for counter-terrorism, HA/DR, maritime security, military medicine, humanitarian mine

¹⁹ The ARF, a forum aimed at improving the security environment in the Asia-Pacific region through dialogue and cooperation on political and security issues, has been held since 1994. The ARF currently comprises 26 countries and one organization as members and holds various inter-governmental meetings that are attended by both foreign affairs and defense officials to exchange opinions on the regional situation and the security area. The 26 countries are the 10 ASEAN member states (Brunei, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, Vietnam, Cambodia (since 1995) and Myanmar (since 1996)), Japan, Australia, Canada, China and India (since 1996), New Zealand, PNG, the ROK, Russia, the United States and Mongolia (since 1998), North Korea (since 2000), Pakistan (since 2004), Timor-Leste (since 2005), Bangladesh (since 2006), and Sri Lanka (since 2007). The organization member is the EU.

²⁰ The ADMM-Plus was founded in October 2010. Japan, the United States, Australia, the ROK, India, New Zealand, China and Russia participate in this meeting as Dialogue Partners.

²¹ Experts’ Working Groups (EWGs). Japan has proactively contributed to the EWGs. In 2021, Japan participated in the EWG on Cybersecurity in March and November, in the EWG on Maritime Security in March and July, in the EWG on Military Medicine in March and June, in the EWG on HA/DR in April and November, in the EWG on Counter-terrorism in June and December, and in the EWG on Humanitarian Mine Action in September. In addition, Japan participated in the EWG on Maritime Security in February 2022.

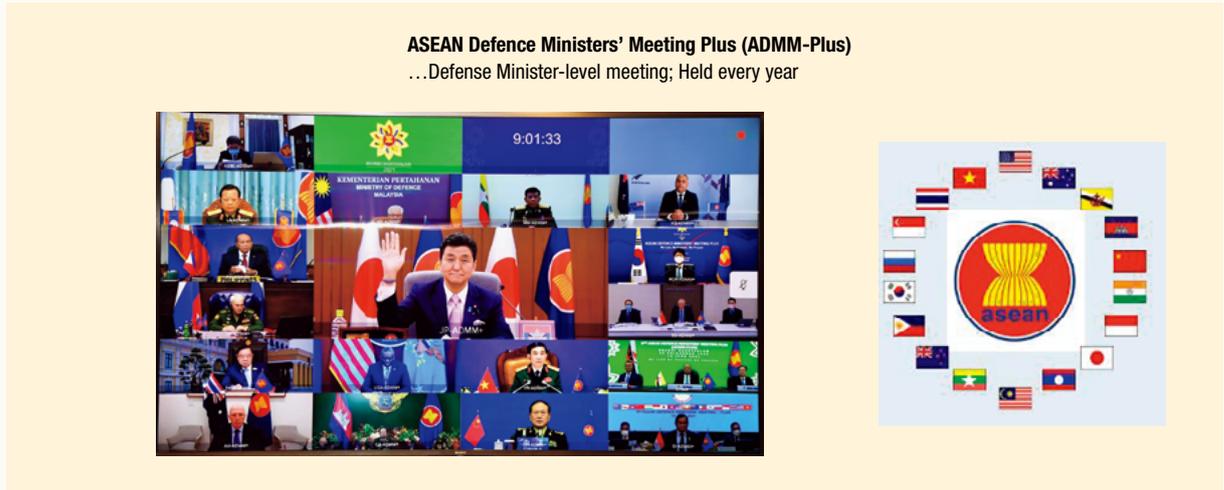
Fig. III-3-1-4 Organizational Chart and Overview of the ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus)

ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus)

The government-sponsored official meeting of the defense ministers in the Indo-Pacific region that includes countries outside the ASEAN region

* Participating countries: 10 ASEAN member countries + 8 countries (Australia, China, India, Japan, New Zealand, ROK, Russia, and the U.S.)

The Experts' Working Groups (EWGs) established under the framework of the ADMM-Plus take practical actions, such as joint exercises, to address security issues in the Indo-Pacific region, which is a unique feature of the ADMM-Plus.



Experts' Working Groups (EWGs)

EWGs were established in seven fields. Each EWG is hosted jointly by one of the 10 ASEAN member countries and one of the additional 8 countries for a term of three years.

* Seven fields: (i) counter-terrorism, (ii) HA/DR, (iii) maritime security, (iv) military medicine, (v) PKO, (vi) humanitarian mine action, and (vii) cyber security

EWGs respectively take practical actions such as sharing information, holding workshops and seminars, conducting joint training, and submitting recommendations and reports concerning respective areas.

action, cybersecurity, and PKO, and each is co-chaired by an ASEAN member state and Plus Country for a three-year term. As of 2022, Japan serves as chair of the PKO EWG²² with Vietnam, and is helping to share practical and expert knowledge on PKO and promote cooperation.

(2) ASEAN Direct Communications Infrastructure (ADI)

During the Japan-Brunei defense ministers' video teleconference in December 2021, Minister of Defense Kishi announced Japan's entry to the ASEAN Direct communications Infrastructure (ADI). ADI is a permanent hotline that ASEAN has operated since

²² So far, Japan has served as chair of the EWG on Military Medicine during its first term (2011 to 2013) and as joint chair of the EWG on HA/DR during its second term (2014 to 2016), actively participated in each EWG during its third term (2017 to 2019), and is serving as joint chair of the EWG on PKO with Vietnam in its fourth term (2021 to 2124).

October 2017 in order to facilitate communication between the defense ministers of ASEAN countries, including during emergencies. A decision was made in July 2019 to extend ADI to Plus Countries as well. Because ADI is an important security initiative for building confidence and managing crises in the region, as well as for further strengthening cooperation between Japan and ASEAN, the MOD/SDF intends to actively utilize ADI to promote closer communication with ASEAN, in order to contribute more actively to peace and stability in the region with all parties.

 See Fig. III-3-1-4 (Organizational Chart and Overview of the ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus))

(3) ARF

Regarding the ARF, in which mainly diplomatic authorities are engaged, concrete efforts²³ have been made in recent years for specific initiatives in non-traditional security areas such as disaster relief, maritime security, and peacekeeping and peace building. The MOD/SDF has been making active contributions to this forum.

For example, in the field of disaster relief, the MOD/SDF has dispatched SDF personnel and aircraft to ARF Disaster Relief Exercises (ARF-DiREx) conducted since 2009.

(4) Multilateral Security Dialogues Sponsored by the MOD/SDF

a. ASEAN-Japan Defence Ministers' Informal Meeting and Vientiane Vision 2.0

Based on the proposal by then Prime Minister Abe at the ASEAN-Japan Commemorative Summit in December 2013, the first ASEAN-Japan Defence Ministers' Informal Meeting took place in Bagan, Myanmar, in November 2014. This meeting, in which opinions were exchanged on cooperation in non-traditional security areas such as humanitarian assistance/disaster relief (HA/DR) and maritime security, was a breakthrough opportunity bringing defense ministers from Japan and the ASEAN countries together for the first time in the history of nearly 50 years of friendship and cooperation between Japan and ASEAN. This marked an important first step towards strengthening defense cooperation in

the future.

In November 2019, at the 5th ASEAN-Japan Defence Ministers' Informal Meeting, then Defense Minister Kono announced an updated version of Japan's original initiative Vientiane Vision; "Vientiane Vision 2.0."

The Vientiane Vision presents an overall picture of the priority areas of the future direction of ASEAN-wide defense cooperation in a transparent manner. It retains the basic framework of the initial Vision, including its objectives, direction, and means of cooperation, but introduces three new pillars: firstly, establishing three principles of Japan-ASEAN cooperation which are "heart-to-heart cooperation," "tailored and lasting cooperation" and "equal and open cooperation;" secondly, introducing the concept of "resilience" to clarify the connection between our efforts and ASEAN's centrality and unity; and thirdly, pursuing synergies between the AOIP and Japan's FOIP.

Furthermore, Minister of Defense Kishi attended the 6th Japan-ASEAN Defence Ministers' Informal Meeting held online in December 2020, and announced a new program under "Vientiane Vision 2.0" - the "ASEAN-Japan Cyber Security Training Program for Defense Authorities."²⁴ ASEAN member state ministers welcomed the proposal, and expressed their expectation for the furtherance of practical Japan-ASEAN defense cooperation in the future. Due to the impact of COVID-19, the first program was conducted in an online format in February 2022.

In the field of HA/DR, Japan has conducted the Japan-ASEAN Invitation Program on HA/DR since 2018. In April 2021, Japan held the Japan-ASEAN Seminar on Humanitarian Assistance and Disaster Relief (Online). During the seminar, the defense authorities of Japan and ASEAN member states shared their respective experiences related to infectious disease countermeasures in response to the global spread of COVID-19, and held group discussions on related topics.

In addition, in October 2021, the MOD/SDF conducted the second Professional Airmanship Program online for air force officers and officials from all ASEAN member states and the ASEAN Secretariat. During the program, participants exchanged views on

²³ In addition to the Ministers' meeting at the foreign minister level, the Senior Officials' Meeting (SOM) and Inter-Sessional Meetings (ISM) are held each year, as well as meetings of the Inter-Sessional Support Group on Confidence Building Measures and Preventive Diplomacy (ISG on CBM/PD) and the ARF Security Policy Conference (ASPC). Moreover, since the Ministers' meeting in 2002, the ARF Defense Officials' Dialogues (DOD) has been held ahead of the main meeting.

²⁴ SDF personnel serve as instructors in a seminar for ASEAN countries' cybersecurity personnel with the aim of enabling them to respond more appropriately to cyber incidents.

the themes of International Aviation Law and Norms, Security in the Air, and Humanitarian Assistance and Disaster Relief to facilitate the sharing of practical and professional knowledge and perspectives. Regarding the Japan-ASEAN Ship Rider Cooperation Program that since 2017 has been conducted on board the destroyer JS “Izumo,” which is currently engaged in deployment training for the Indo-Pacific region, has been suspended since 2020 due to the impact of COVID-19.

Through these initiatives, Japan has worked to promote capacity building, mutual understanding, and network building with participants from all ASEAN member states through seminars and training programs in various areas, including maritime security and humanitarian assistance/disaster relief (HA/DR), while also fostering a shared recognition about international law, which has contributed to the stability of the Indo-Pacific region.

 See Reference 51 (Vientiane Vision 2.0)

b. Japan-ASEAN Defense Vice-Ministerial Forum

Since 2009, the MOD has annually held the Japan-ASEAN Defense Vice-Ministerial Forum for the purpose of strengthening bilateral and multilateral relationships through the development of human networks between Japanese and ASEAN vice-ministerial level officials. The forum was canceled in 2020 and 2021 due to the COVID-19 pandemic.

c. Tokyo Defense Forum, etc.

The MOD has held the Asia-Pacific Defense Forum (Tokyo Defense Forum) since 1996 for senior officials in charge of defense policy (Director-General level officials and general-level officers) from the countries in the region to discuss defense policies of the participating countries and confidence-building measures in the field of defense.

The forum was canceled in 2020 and 2021 due to the COVID-19 pandemic.

(5) Others

a. International Conferences Hosted by Private Organizations

International conferences on security include not only intergovernmental conferences but also meetings organized by private organizations in which various people, such as government officials, scholars, and journalists, participate to discuss medium- to long-term security issues.

Major international conferences organized by private bodies include the IISS Asia Security Summit (Shangri-La Dialogue),²⁵ IISS Regional Security Summit (Manama Dialogue),²⁶ organized by the International Institute for Strategic Studies (IISS), and the Munich Security Conference,²⁷ one of the most prestigious meetings on security in Europe and the United States. Defense Minister and MOD officials actively participate in these meetings, holding talks with defense ministers and other representatives from other countries, while making speeches at these meetings, in order to build trust and share mutual recognition with high-level officials and to send out positive messages.

In November 2019, then Defense Minister Kono attended the 15th Manama Dialogue. This was the first time for a Japanese Defense Minister to participate in the event. At the meeting, he delivered a speech and held bilateral talks with the French Minister of the Armed Forces and ministerial-level officials from Jordan, Bahrain, and Yemen. In this speech, Mr. Kono stated that Japan continues to contribute to the peace and stability of Middle East region taking the view that the open and stable maritime order provides the basis for a stable and prosperous international community, and that the Self-Defense Forces is forging broader and closer ties with this region through contribution to the regional maritime security by human resources, participation in trainings, defense equipment cooperation, person-to-person links, and other initiatives. Mr. Kono also stated that the freedom of navigation and the rule of law at sea is important, and explained that, in order to ensure the safety of Japan-related ships and also to secure the

²⁵ This is a multilateral conference sponsored by IISS, a private U.K. think tank, in which defense ministers from various countries participate with the objective of discussing defense-related issues and regional defense cooperation. It has been held in Singapore every year since 2002 and is known as the Shangri-La Dialogue, named after the hotel where it takes place. The conference was canceled in 2020 and 2021 due to the COVID-19 pandemic.

²⁶ An international conference hosted by the IISS, where foreign and defense authorities and other stakeholders mainly from Middle Eastern countries exchange views on security issues. It is held annually in Manama, Bahrain.

²⁷ This is one of the most prestigious international security meetings organized by private bodies in Europe and the United States and has been held annually (usually in February) since 1962. Usual participants in the meeting include officials at the ministerial level from major European countries as well as top leaders, ministers, and lawmakers from countries in the world, and key executives of international organizations.



Gen. Yamazaki, Chief of Staff, Joint Staff, participating in the Indo-Pacific Chiefs of Defense Conference (CHOD)



Adm. Yamamura, Chief of Staff, MSDF, participating in the International Seapower Symposium held by the U.S. Navy



Gen. Yoshida, Chief of Staff, GSDF, participating in the Indo-Pacific Landpower Conference online (May 2020)



Gen. Izutsu, Chief of Staff, ASDF, in the Pacific Air Chiefs Symposium (PACS) (center) (Right: Chief of Staff of the U.S. Air Force. Left: Commander of the U.S. Pacific Air Forces)

peace and stability of the Middle East region, Japan has started to consider utilizing the assets of the Japan Self-Defense Forces as Japan's independent efforts to reinforce its information gathering posture.

In December 2019, then Defense Minister Kono also attended the 19th Doha Forum organized by the Government of Qatar for the first time as a defense minister. He held bilateral meetings with the Ministers of Defense of Qatar and Malaysia and the Chairman of the Joint Chiefs of Staff of Jordan, while also delivering a speech at the main meeting. In his speech on multilateral security cooperation, Defense Minister Kono expressed concern over the strengthening of North Korea's military capabilities, including its nuclear and missile capabilities. He also stated that it is necessary to reinforce arms control and disarmament and the rule of law in the international community, and that Japan is working with other countries to promote FOIP through bilateral/multilateral exercises, capacity building, and defense equipment and technology cooperation based

on the rule of law. He cited Vientiane Vision 2.0 as an example of Japan's multilateral security cooperation efforts, and said that Japan would continue to promote multilateral security cooperation.

Then Minister of Defense Kono and then Minister of Foreign Affairs Motegi attended the 56th Munich Security Conference in February 2020. On the occasion of the conference, then Minister of Defense Kono held the first defense ministerial meeting with H.E. Andriy Zahorodnyuk, Ukrainian Minister of Defence, as well as bilateral and other meetings with the defense ministers of Canada, France, and Germany, as well as with the High Representative of the EU and the Secretary General of NATO, where they exchanged views on defense cooperation and exchanges and regional situations.

b. Initiatives of Each Service

(a) Joint Staff

In August 2021, the Chief of Staff, Joint Staff participated in the Indo-Pacific Chiefs of Defense Conference (CHOD) hosted by the U.S. Indo-Pacific

Command. During the conference, the Chief of Staff, Joint Staff reaffirmed the importance of spreading and instilling fundamental values such as the rule of law, which is the basic concept of a “free and open Indo-Pacific,” and of establishing the region as the global commons that brings peace, stability, and prosperity to all countries without distinction, and also shared the need to strengthen cooperation.

(b) GSDF

In May 2021, the Chief of Staff, GSDF participated in the Indo-Pacific Landpower Conference, a video teleconference hosted by the commander of the U.S. Army Pacific. The conference was attended by top-level army officials from a total of 22 countries and regions in Northeast Asia, Southeast Asia, South Asia, and Oceania, etc., who shared the view that their countries will continue to strengthen cooperation in order to uphold and reinforce a FOIP.

(c) MSDF

In September 2021, the Chief of Staff, MSDF participated in the International Seapower Symposium (ISS) organized by the U.S. Navy, during which he exchanged views on the theme of “Strength in Unity” and shared his awareness of challenges to realizing a FOIP.

(d) ASDF

In August 2021, the Chief of Staff, ASDF participated in the Pacific Air Chiefs Symposium 21 (PACS21) hosted by the U.S. Pacific Air Forces commander.

During the symposium, the air chiefs and other officials from the Indo-Pacific region shared their understanding of the security environment in the Indo-Pacific region and reaffirmed the importance of multilateral cooperation on issues that are difficult to resolve by any one country, such as activities that utilize space and cyberspace and responding to large-scale disasters, in order to realize a FOIP.

initiative and facilitate international peace cooperation activities through cooperation with governments, military forces, international organizations, and non-governmental organizations (NGOs) in those countries. Japan has dispatched SDF medical personnel and units under the Pacific Partnership since 2007. In 2021, due to measures taken in response to COVID-19, the Ground, Maritime, and Air Self-Defense Forces’ bands participated online by creating a music video that included joint performances with the U.S. Pacific Fleet Band, the Royal Australian Navy Band, and the Philippine Navy Seabees Band.

(2) Multilateral Exercises

a. Significance of Multilateral Exercises in the Indo-Pacific Region

In the Indo-Pacific region, the MOD/SDF has actively participated in multilateral training and exercises in non-traditional security fields, such as HA/DR and Non-combatant Evacuation Operations (NEO), in addition to traditional training conducted in preparation for combat situations. It is important to participate in such multilateral exercises so as not only to raise the skill level of the SDF, but also to create a cooperative platform with relevant countries. In light of this perspective, the MOD/SDF intends to continue to actively engage in such training.

b. Initiatives for Multilateral Exercises

The multilateral relationships have recently shifted from the phrase for building trust to the phrase for developing more concrete and practical cooperative relationships. Various multilateral training and exercises have been actively conducted as important initiatives to effectively help this shifting.

 See Reference 52 (Participation in Multilateral Exercises (Past Three Years))

2 Promoting Practical Multilateral Security Cooperation Initiatives

(1) Pacific Partnership

The Pacific Partnership (PP), which started in 2007, is an initiative in which naval vessels, primarily those from the U.S. Navy, visit countries in the Asia-Pacific region to provide medical care, conduct facility repair activities, and engage in cultural exchange to strengthen cooperation between countries participating in the

4 Proactive and Strategic Initiatives for Capacity Building

1 Significance of Capacity Building

In today's security environment, no country can maintain its peace and stability on its own. It is indispensable for the international community to unite to resolve global issues. Capacity building is an initiative to actively create regional stability and enhance the global security environment by improving recipient countries' own capacities through continuous human resource development and technical support on a steady-state basis in fields related to security and defense. The MOD/SDF have been providing capacity building in the areas of security and defense since 2012, in response to requests and expectations of such cooperation from the defense authorities of countries in Southeast Asia and elsewhere.

By implementing capacity building programs with other countries, in particular those in the Indo-Pacific region, the MOD/SDF are focusing on creating a desirable security environment for Japan by enabling the partner countries' forces, etc., to adequately fulfill roles in maintaining international peace and regional stability. Such activities have the effects of (1) strengthening bilateral relationships with partner countries, (2) strengthening relationships with countries such as the United States and Australia by providing capacity building through cooperation with them, and (3) enhancing trust in the MOD/SDF and Japan as a whole by raising awareness at home and abroad of Japan's proactive and independent efforts to realize regional peace and stability.

The MOD/SDF will implement capacity building programs effectively by fully cooperating with diplomatic policies and combining various means to maximize these effects, while also tapping into the knowledge accumulated by the SDF to date.

2 Specific Activities

The MOD/SDF has conducted capacity building programs in such areas as Humanitarian Assistance and Disaster Relief (HA/DR), PKO, and maritime security for 15 countries and one organization, with a focus on the Indo-Pacific region.

The MOD/SDF's capacity building programs are aimed at improving the capabilities of partner countries



SDF personnel providing education on PKO to the People's Army of Vietnam as part of a capacity building program

in a concrete and steady manner over a certain period of time. Some programs are carried out by dispatching MOD/SDF officials to the partner country, by inviting the partner country's officials to Japan, or a combination of both.

With the dispatch method, SDF officials with technical knowledge are dispatched to the partner country to help said country's forces and their related organizations improve their capacity through seminars, lectures, and technical guidance. With the invitation method, the partner country's officials are invited to the MOD/SDF's units and organizations to improve their capacity and to share knowledge of current human resources development efforts by the MOD/SDF through seminars, lectures, practical exercises, and training programs.

In addition, online lectures and practical training have been introduced as a new means of capacity building from 2021, in light of the COVID-19 pandemic.

As part of capacity building, seven dispatch programs were conducted for six countries from April 2021 to March 2022, with a cumulative total of 76 individuals dispatched. In addition, nine online lectures and practical exercises were conducted for five countries and one organization, with a total of 121 individuals receiving support. Invitation programs were not conducted during the target period due to the impact of COVID-19 and other factors.

Specifically, some of the capacity building dispatch programs conducted by the MOD/SDF included knowledge sharing and practical skill-building support

Fig. III-3-1-5 Recent Capacity Building Initiatives (from April 2021 to March 2022)

Capacity Building

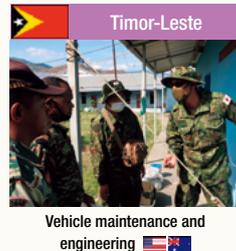
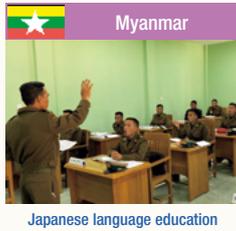
Capacity building ... Project aiming to improve the capabilities of partner countries in a concrete and steady manner over a certain period of time through **dispatch** of SDF personnel, etc., and **invitation of personnel from recipient countries**

Dispatch ... **Dispatch** SDF personnel or others with expert knowledge to **partner countries** to provide seminars, exercises, lectures, technical guidance, etc., with the aim of improving the capabilities of military forces and related knowledge of recipient countries.

Invitation ... **Invite** officials of partner countries to the **MOD, SDF units or other related organizations**, and provide them with seminars, exercises, lectures, education and training, etc., for sharing knowledge concerning human resource development initiatives for the MOD and SDF and for capacity building of officials of partner countries.

Countries for which capacity building has been provided and fields (April 2021-March 2022)

* shows program provided together with the United States and Australia.
 * Black indicates dispatch, red indicates online, and blue indicates dispatch plus online.



in the fields of PKO (engineering) for Mongolia, vehicle maintenance and engineering for Timor-Leste, military band training for PNG, HA/DR for the Philippines, and PKO and air rescue for Vietnam.

Online programs included seminars in the fields of HA/DR and cybersecurity for ASEAN member states and the ASEAN Secretariat; PKO, submarine medicine, and underwater unexploded ordnance disposal for Vietnam; aviation medicine for the Philippines; HA/DR for Laos; air rescue for the Sri Lanka Air Force; and HA/DR for Mongolia.

In addition, as part of capacity building for Africa, the

MOD/SDF has been implementing a program since 2016 for supporting the enhancement of disaster response capacity for the Djibouti Armed Forces, including training on how to operate engineering equipment such as hydraulic shovels, graders, and dozers. From October to December 2021, 13 SDF personnel were dispatched to train 24 members of Djibouti's engineering unit.

See Fig. III-3-1-5 (Recent Capacity Building Initiatives (from January 2021 to March 2022))

3 Collaboration with Related Countries

The MOD also conducts capacity building for third party countries in collaboration with the United States, Australia, and other countries.

Firstly, between Japan and the U.S., the joint statement of the Japan-U.S. “2+2” in April 2015 states that the two countries would strengthen their continued close coordination on cooperation including capacity building to realize peace, stability, and prosperity in the region. The two ministers agreed to promote defense cooperation with Southeast Asian countries.

Between Japan and Australia, as part of Japan-Australia cooperation in the area of capacity building, the MOD has received five officials from the Australian Department of Defence since 2013. In exchange, the

MOD has dispatched four officials to the Australian Department of Defence since 2015.

In November 2017, Japan and Australia held the first working group on capacity building.

Japan has also cooperated with the United States and Australia in providing capacity building to Timor-Leste. The SDF and the U.S. forces participated in the Harii Hamutuk Exercise sponsored by the Australian forces in Timor-Leste six times since October 2015, providing technical guidance on engineering for engineering units of the Timor-Leste forces.

It is important for Japan and other countries providing capacity building to conduct such cooperation effectively and efficiently by closely coordinating with and mutually complementing each other.

Section 2 Ensuring Maritime Security

The NDPG states that for Japan, a maritime nation, strengthening the order of “Open and Stable Seas” based on fundamental norms, such as the rule of law and the freedom of navigation, as well as ensuring safe maritime and air transport, is the foundation for its peace and prosperity, and is extremely important.

From this viewpoint, the MOD/SDF will promote assistance that contributes to improving capabilities pertaining to the maritime security of coastal states in

the Indo-Pacific region, such as Sri Lanka, and other South and Southeast Asian states.

Moreover, Japan is promoting such activities as bilateral/multilateral training and exercises, unit-to-unit exchanges, and active port visits on these occasions. Japan is also promoting activities such as counter-piracy efforts in cooperation with relevant countries and cooperation for strengthening the capabilities of the Maritime Domain Awareness (MDA).

1 Initiatives towards Ensuring Maritime Security

(1) The Fundamental Idea of the Government

The National Security Strategy (NSS) states that as a maritime state, Japan will play a leading role, in maintaining and developing “Open and Stable Seas,” which are upheld by maritime order based upon such fundamental principles as the rule of law, ensuring the freedom and safety of navigation and overflight, and peaceful settlement of disputes in accordance with relevant international laws, rather than by force.

The third Basic Plan on Ocean Policy was given Cabinet approval in May 2018. Taking a broad view of ocean policy from the perspective of security on the ocean, the Plan states that the government will act as one in undertaking “comprehensive maritime security.”

For this purpose, the government is working to secure the national interest in the territorial waters of Japan and stable use of its important sea lanes.

Furthermore, the government will further strengthen its efforts toward enhancement of MDA that collects and summarizes a variety of maritime information from ships, aircraft, etc., in order to use the information for measures regarding the sea.

Concerning the Code of Conduct in the South China Sea (COC), which China and ASEAN are continuing to discuss, Japan has expressed its position that the COC

should conform with international law including the UN Convention on the Law of the Sea (UNCLOS) and not infringe on the legitimate rights and interests of all parties of the South China Sea.

(2) Initiatives of the MOD/SDF

The MOD/SDF is conducting counter-piracy operations to secure stable use of sea lanes and information gathering activities to ensure the safety of Japan-related vessels in the Middle East. In addition, the MOD/SDF take every opportunity to appeal to the international community regarding the importance of the rule of law and freedom of navigation. For example, at the June 2021 ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus), Minister of Defense Kishi noted that Japan has consistently been advocating for thorough enforcement of “the rule of law” in seas essential to Japan's prosperity. He pointed out that there are continued attempts to change the status quo by coercion in the East China Sea and the South China Sea, and urged that it is important for all concerned parties in the South China Sea to make efforts toward the peaceful resolution of disputes in accordance with international law, in particular the United Nations Convention on the Law of the Sea (UNCLOS).

2 Counter-Piracy Operations

1 Significance of Counter-Piracy Operations

Piracy is a grave threat to public safety and order on the seas. It can not be ignored especially for Japan, depending on maritime transportation to import most of the resources and food necessary for its survival and prosperity as a maritime nation. The Japan Coast Guard (JCG), one of the law enforcement agencies in Japan, is primarily responsible for coping with piracy. However, in cases where it is deemed extremely difficult or impossible for the JCG to cope with piracy by itself, the SDF is to take action as well.

For Japan and the international community, the waters off the coast of Somalia and in the Gulf of Aden are extremely important sea lanes, connecting Europe and the Middle East with East Asia. Successive UN Security Council resolutions¹ were adopted, such as UN Security Council Resolution 1816, which was adopted in June 2008 in response to the frequent occurrence of and rapid increase in piracy incidents with the purpose of acquiring ransoms by detaining hostages caused by pirates, who are armed with machine guns and rocket launchers. These resolutions have requested that various countries take actions, particularly the dispatch of warships and military aircraft, to deter piracy in the waters off the coast of Somalia and in the Gulf of Aden.

To date, approximately 30 countries, including the United States, have dispatched their warships to the waters off the coast of Somalia and in the Gulf of Aden. As part of its counter-piracy initiatives, the EU has been conducting Operation Atalanta since December 2008, in addition to the counter-piracy operations conducted by the Combined Task Force 151 (CTF 151)² that was established in January 2009. Meanwhile, other countries have been dispatching their assets to the area. In June

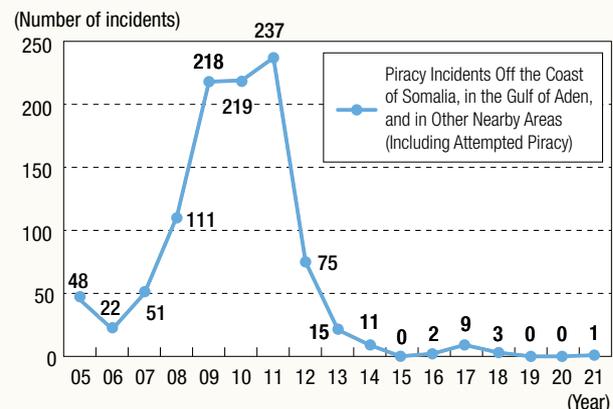
2021, the CTF 151 was reorganized into the Combined Task Group 151 (CTG 151), following organizational restructuring aimed at more efficient unit operations.

As these initiatives by the international community have proved to be effective, the number of acts of piracy occurring in the waters off the coast of Somalia and in the Gulf of Aden has currently hovered at a low level. However, the assumed root causes of piracy such as unstable security and poverty in Somalia have still remained unsolved. In addition, considering the fact that Somalia's capability to crack down on piracy is also still insufficient, the situation could be easily reversed if the international community reduces its counter-piracy efforts. Therefore, there is no great change in the situation in which Japan must carry out its counter-piracy operations.

 **See** Part II, Chapter 5, 3-3 (Counter-Piracy Operations)
Fig. III-3-2-1 (Piracy Incidents Off the Coast of Somalia, in the Gulf of Aden, and in Other Nearby Areas (Including Attempted Piracy))

Fig. III-3-2-1

Piracy Incidents Off the Coast of Somalia, in the Gulf of Aden, and in Other Nearby Areas (Including Attempted Piracy)



Notes: The data is based on a report by the International Maritime Bureau (IMB) of the International Chamber of Commerce (ICC).



MOVIE: [Overseas Dispatch] Waterborne Unit activities record: 39th dispatch for counter-piracy operations

URL: <https://youtu.be/vuFxed4AVLw>

¹ Other UN Security Council resolutions calling for cooperation in deterring piracy are: Resolutions 1838, 1846, and 1851 (adopted in 2008), Resolution 1897 (adopted in 2009), Resolutions 1918 and 1950 (adopted in 2010), Resolutions 1976 and 2020 (adopted in 2011), Resolution 2077 (adopted in 2012), Resolution 2125 (adopted in 2013), Resolution 2184 (adopted in 2014), Resolution 2246 (adopted in 2015), Resolution 2316 (adopted in 2016), Resolution 2383 (adopted in 2017), Resolution 2442 (adopted in 2018) Resolution 2500 (adopted in 2019), Resolution 2554 (adopted in 2020) and Resolution 2608 (adopted in 2021).

² The Combined Maritime Forces (CMF), the headquarters of which is located in Bahrain, announced the establishment of the CTF in January 2009 as a multilateral combined task force for counter-piracy operations.

VOICE Voices from Commander, Deployment Support Group for Counter Piracy Enforcement

Djibouti SDF activity base (Republic of Djibouti) Commander, Deployment Support Group for Counter Piracy Enforcement

Colonel KUWAHARA Kazuhiro

I have served as the commander of the support unit for a destroyer and patrol aircraft unit engaging in anti-piracy missions since July 2021. The anti-piracy missions in the waters off the coast of Somalia and in the Gulf of Aden started at the U.S. base in Djibouti in 2009. Ten years have passed since the base was relocated to the current activity base in 2011.

The Self-Defense Forces (the SDF) has been constantly continuing its anti-piracy missions during this time and has succeeded in achieving zero cases of piracy for the past few years. We are proud that this achievement is the result of the coordination efforts undertaken by a destroyer and patrol aircraft unit that directly deals with acts of piracy and by a support unit that defends a support base and engages in support operations. Every day, together with unit members, I can feel how rewarding

it is to contribute to safe maritime transport and to support the affluent lives of the Japanese people including our families behind the scenes.

Serving at the base where we are constantly under high stress with tough weather conditions is even harder amid the COVID-19 pandemic. While our unit members cannot have any recreations, including going out, they mutually stimulate their professionalism through exchanges by conducting services and training with U.S. and French forces and remain high on morale, solidarity, and discipline. In addition, it is important to continue to feel the bonds with our native country when being dispatched overseas. Coincidentally, I happened to spend time at the base in Djibouti when the Tokyo 2020 Summer Olympics and the Beijing 2022 Winter Olympics were held. I told my unit personnel how hard Japanese athletes, including Physical Training School JSDF, worked and I keep working on my duties while getting moved and energized by their hard work.



A memorial photo in celebration of the 10th anniversary of setting up a base (with patrol aircraft unit members and the families of embassy staff)



Support unit members are seeing off the Maritime Self-Defense Force destroyer "Yudachi" departing from port

2 Japanese Initiatives

(1) Legislation Concerning Counter-Piracy Operations

In March 2009, following the order for Maritime Security Operations for the purpose of protecting Japan-related vessels from acts of piracy in the waters off the coast of Somalia and in the Gulf of Aden, two destroyers³

began providing direct escort to Japan-related vessels, while P-3C patrol aircraft also commenced warning and surveillance operations in June of the same year.

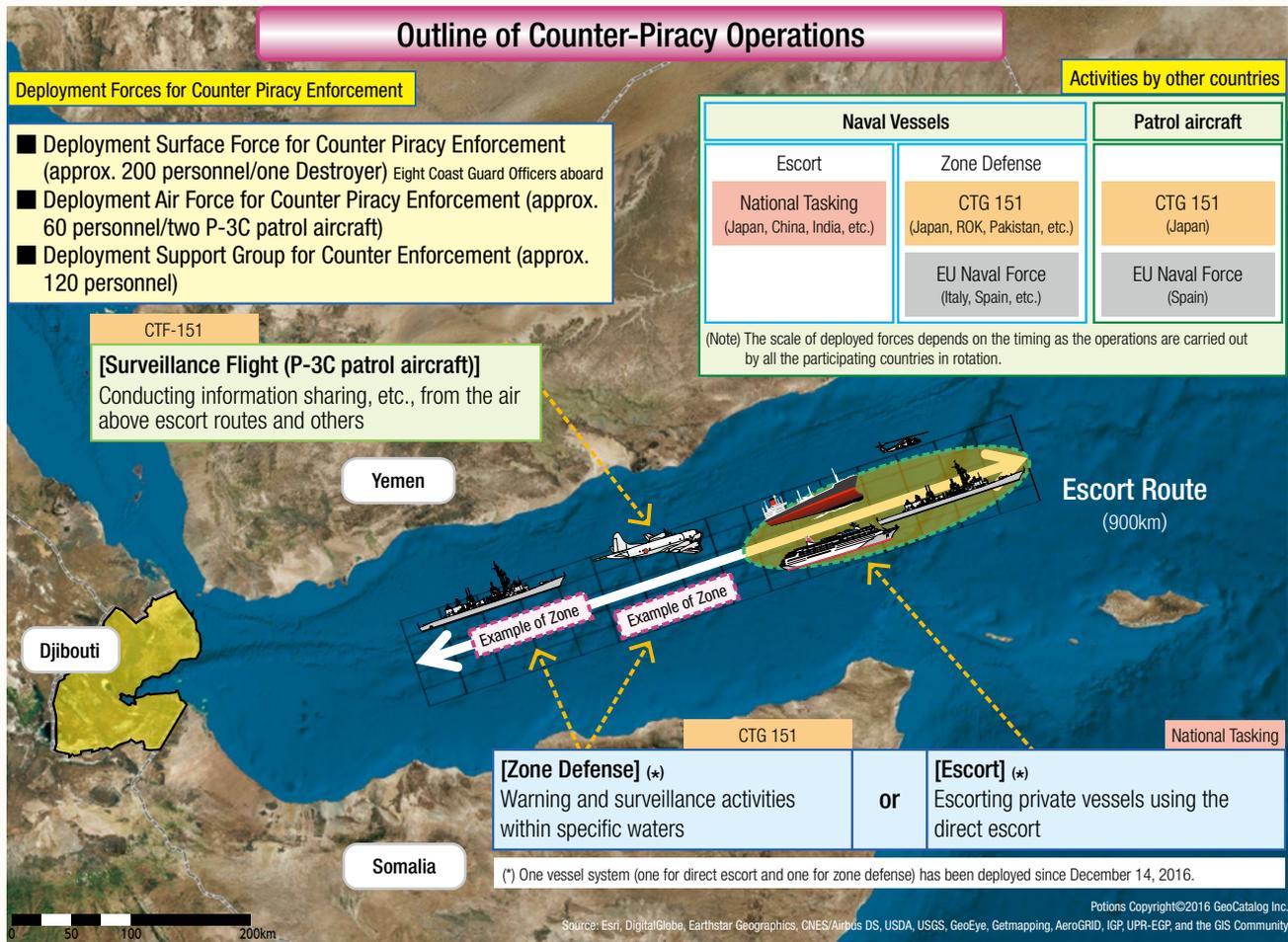
Japan subsequently enacted the Anti-Piracy Measures Act⁴ in July of the same year. This act made it possible to protect the vessels of all nations from acts of piracy, regardless of their flag states. Moreover, it also enabled the use of weapons to a reasonable extent, if no other

³ The number of destroyers was changed to one from December 2016.

⁴ Official title: Acts on Punishment of and Measures against Acts of Piracy

Fig. III-3-2-2

SDF's Counter-Piracy Operations [Image]



Destroyer JS Onami in a counter-piracy operation in the Gulf of Aden (September 2020)



Parliamentary Vice-Minister of Defense Nakasone participating in a departure ceremony for the counter-piracy operations off the coast of Somalia and in the Gulf of Aden, at Kure Naval Base (January 2022)

means were available, in order to halt vessels engaging in acts of piracy, such as approaching civilian vessels.

Furthermore, the Act on Special Measures concerning the Guarding of Japanese Ships in Pirate-Infested Waters came into force on November 2013, which made it possible to have security guards on board a Japanese

ship provided certain requirements are met, enabling them to carry small arms for the purpose of security operations.

See Reference 12 (Conditions Required for Main Operations of the Self-Defense Forces (Including Diet Approval) and Authority for the Use of Weapons Concerning Main Operations of the Self-Defense Forces)

(2) Activities by the SDF

a. Dispatch of the Deployment Surface Force for Counter Piracy Enforcement (DSPE) and Other Units

The SDF dispatches the DSPE, the Deployment Air Force for Counter Piracy Enforcement (DAPE), and the Deployment Support Group for Counter Piracy Enforcement (DGPE) to carry out counter-piracy operations.

The DSPE strives to ensure the safety of ships navigating in the area in two different manners - direct escort of private vessels across the Gulf of Aden, and zone defense in allocated areas in the Gulf of Aden, by using a destroyer. There are JCG officers aboard the destroyer.⁵

The DAPE conducts counter-piracy activities using two P-3C patrol aircraft. The unit conducts surveillance operations in the flight zone that is determined in

coordination with the CTG 151 Headquarters and confirms any suspicious boats. At the same time, the unit also provides information to the MSDF destroyers, the naval vessels of other countries and civilian vessels, responding by such means as confirming the safety of the surrounding area immediately, if requested. The information gathered by MSDF P-3Cs is constantly shared with other related organizations, and contributes significantly to deterring acts of piracy and disarming vessels suspected as pirate ships.

In order to improve the operational efficiency and effectiveness of the DAPE, the DGPE carries out activities such as maintenance of the installation set up in the northwest district of Djibouti International Airport. The year 2021 marked the 10th anniversary of the installation.

Additionally, the Airlift Squadron operates ASDF

VOICE Voices from an SDF personnel working in the Combined Task Group 151 (CTG 151)

Combined Task Group 151 (CTG 151) (Bahrain) NABUCHI Shinichiro, Lieutenant Commander

I serve in the Combined Task Group 151 (CTG 151) in Bahrain. CTG 151's main mission is anti-piracy action in the waters off the coast of Somalia and in the Gulf of Aden and many countries take turns carrying out missions every four to six months on average. Jordan is currently on mission. The Maritime Self-Defense Force always dispatches one personnel to coordinate aircraft operations that engage in anti-piracy missions.



The author serving in the headquarters

During my dispatch, I served with about ten members from ten different countries. I find it very rewarding to participate in a multinational unit and act to protect maritime traffic safety. In addition, I can also learn about the cultures of many countries through communication with my colleagues, which I find to be a very valuable experience.

I sincerely hope that young people will take on overseas services and broaden their horizons.

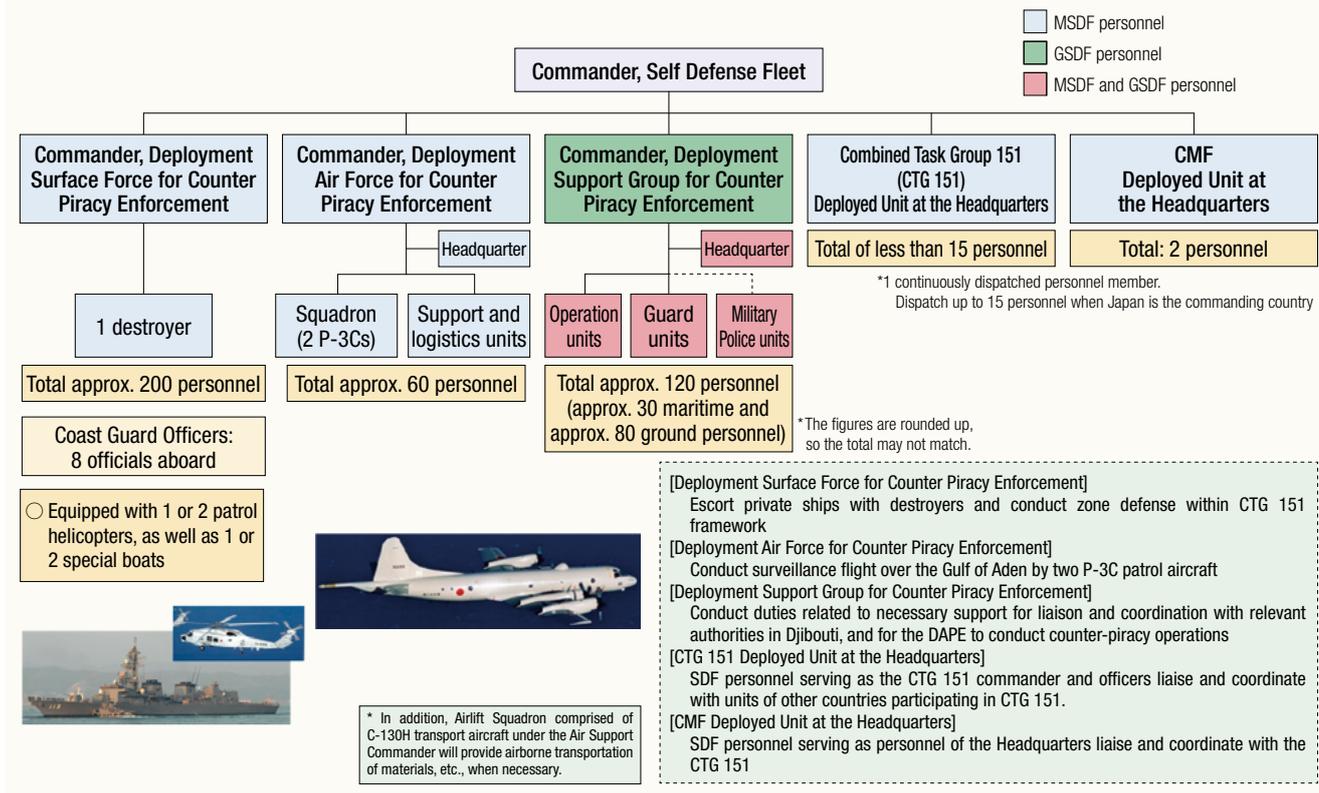


Task Force members from ten countries serving in the headquarters (the author is at the center of the the back row)

⁵ Eight JCG officers are aboard the MSDF destroyer and conducting judicial law enforcement activities, including arresting and interrogating pirates, as required.

Fig. III-3-2-3

Structure of the Deployed Forces



transport aircraft to carry out air transport of materials required by the DAPE and the DGPE, and airlifts, etc., are organized as needed.

b. Units Deployed at the CTG-151 Headquarters and the CMF Headquarters

In order to strengthen coordination with the units of other countries engaged in counter-piracy operations and enhance the effectiveness of the SDF’s counter-piracy operations, since August 2014, the MOD had dispatched SDF personnel to the headquarters of CTF 151, the predecessor to CTG 151. During the period from May to August 2015, the SDF also dispatched a CTF 151 commander for the first time, while between March and June 2017, March and June 2018, and February and June 2020, a CTF 151 commander as well as staff were also dispatched to the Headquarters.

In June 2021, the Combined Maritime Force (CMF) and CTF 151 underwent an organizational restructuring aimed at more efficient unit operations. The SDF continues to dispatch personnel to the reorganized CMF and CTG 151, which was reorganized from CTF 151, in order to engage in counter-piracy operations in cooperation with the international community.

c. Achievements

As of March 31, 2022, the DSPE has escorted 4,063

vessels (including 121 vessels escorted based on orders for Maritime Security Operations). Under the protection of the SDF destroyers, not a single vessel has come to any harm from pirates and these vessels have all passed safely across the Gulf of Aden.

As of March 31, 2022, the DAPE has conducted the following activities: two P-3C aircraft have flown 2,897 missions with their flying hours totaling 21,030 hours; and information was provided to vessels navigating the area and other countries engaging in counter-piracy operations on 15,615 occasions. The activities conducted by the DAPE account for approximately 90% of the surveillance operations carried out in the Gulf of Aden by the international community.

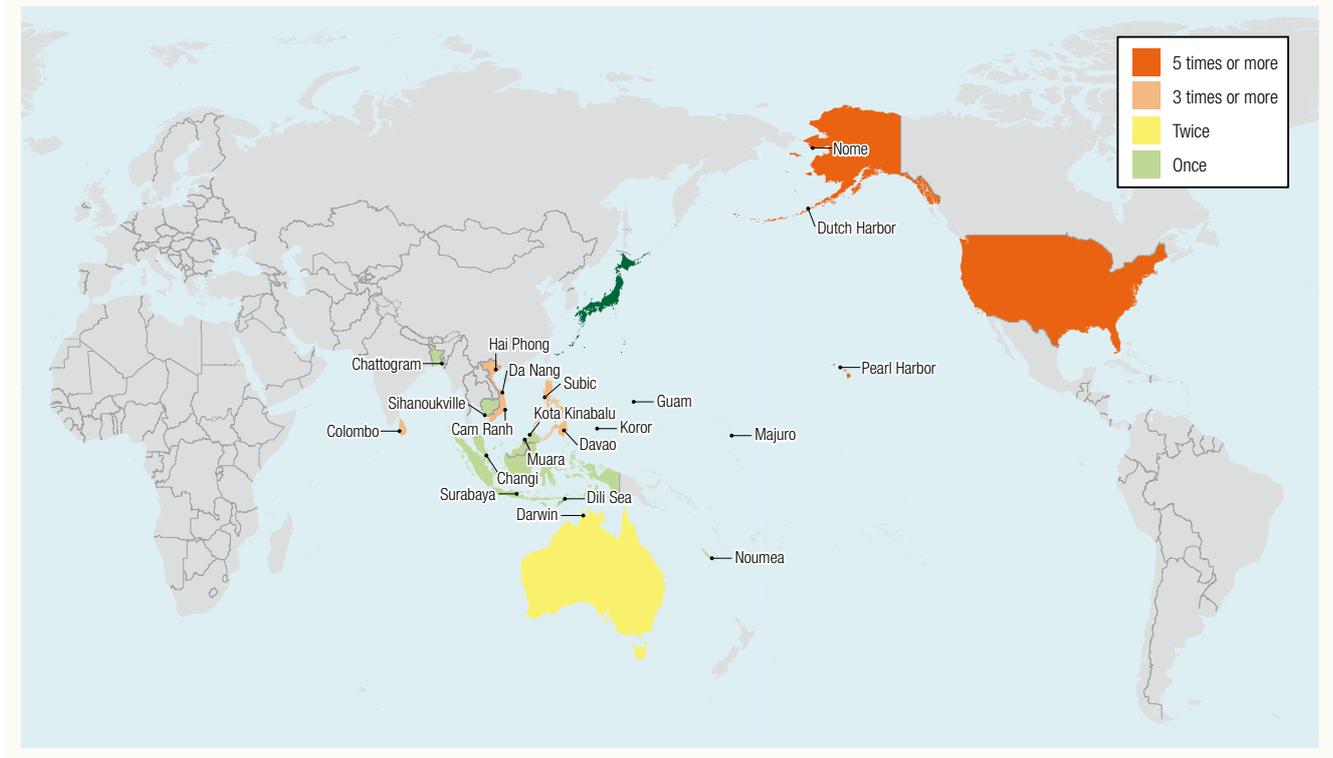
See Fig. III-3-2-2 (SDF’s Counter-Piracy Operations [Image])
Fig. III-3-2-3 (Structure of the Deployed Forces)
Part I, Chapter 4, Section 5-2 (2) (Piracy)

3 Praise for Japan’s Endeavors

The counter-piracy operations by the SDF have been highly praised by the international community. For example, national leaders and others have expressed their gratitude and the SDF has also been repeatedly well-received by UN Security Council Resolutions.

Fig. III-3-2-4

Visit to Ports and Airports by SDF (April, 2021-March, 2022)



Moreover, the MSDF destroyers, which are engaging in counter-piracy operations off the coast of Somalia and in the Gulf of Aden, have received many messages from the captains and ship owners of the vessels that the MSDF has escorted, expressing their gratitude that the ships were able to cross the Gulf of Aden with peace

of mind and asking the MSDF to continue escorting ships there. Additionally, the Japanese Shipowners' Association and other groups expressed appreciation for protection of Japan-related vessels and asked for continuation of efforts in fighting against piracy.

3 Training-Centered Initiatives

The MSDF not only endeavors to enhance its tactical skills through bilateral/multilateral training with Indo-Pacific coastal states, but also strives to contribute to peace and stability in the Indo-Pacific region, promote mutual understanding, and strengthen relationships of trust.

During the Indo-Pacific Deployment (IPD) conducted from August to November 2021, the destroyer JS "Kaga" and other dispatched units conducted bilateral/multilateral training and goodwill exercises with the navies of countries in the Indo-Pacific region and with the navies of European countries that had dispatched vessels to the region. The dispatched units also visited

the Pacific Island countries for the first time during IPD and made port calls at the ports of coastal countries in the Indo-Pacific region, including the Pacific Island countries.

In addition, the DSPE is conducting bilateral/multilateral training with the EU and other organizations⁶ off the coast of Somalia and in the Gulf of Aden with the aim of improving their tactical capabilities and strengthening cooperation with the armed forces of each country. In particular, from July 2021 to January 2022, bilateral exercises were conducted separately with the carrier strike group led by U.K. aircraft carrier HMS Queen Elizabeth, which had entered the Indo-Pacific

⁶ The DSPE conducted bilateral/multilateral training with the U.S. Navy and French Navy in May 2021; with the EU Naval Force (Italian Navy and Spanish Navy), and Djibouti Navy and Coast Guard also in May 2021; with CSG21 (U.K. Royal Navy, U.S. Navy and Royal Netherlands Navy) in July 2021; with the German Navy in August 2021; with the EU Naval Force (Italian Navy) in September 2021; with the EU Naval Force (Spanish Navy) in October 2021; with CSG21 (U.K. Royal Navy) in November 2021; and with the German Navy in January 2022.

before returning to Europe, and with the German frigate FGS Bayern.

Strengthening cooperation with coastal states of the Indo-Pacific region through the bilateral exercises and port calls contributes to the maintenance of maritime

security, which has extremely high significance.

See Reference 52 (Participation in Multilateral Exercises (Past Three Years))
Fig. III-3-2-4 (Visit to Ports and Airports by SDF (April 2021-March 2022))

4 Cooperation in Maritime Security

The MOD/SDF has implemented capacity building in maritime security for Indonesia, Vietnam, the Philippines, Thailand, Myanmar, Malaysia, Brunei and Sri Lanka to help them enhance their MDA and other capabilities. Such programs contribute to strengthening cooperation with partner countries that share common strategic interests with Japan.

The Basic Plan on Ocean Policy, which was approved by a Cabinet decision in May 2018, calls for strengthening cooperation related to maritime security

with various countries through security dialogue and defense interaction among defense authorities at bilateral and multilateral levels with the aim of maintaining and advancing “free and open seas” supported by a maritime order defined by laws and rules. In response to this, the MOD has been working on cooperation for maritime security within regional security dialogue frameworks such as the ADMM-Plus and the ARF Inter-Sessional Meeting on Maritime Security (ISM on MS).

Section 3

Cooperation in Use of Space Domain and Cyberspace

In the international community, there is a broadening and diversifying array of security challenges that cannot be dealt with by a single country alone. Rapid expansion in the use of space domain and cyberspace is poised to fundamentally change the existing paradigm of national security, which makes the establishment of international rules and norms a security agenda. The MOD/SDF will swiftly achieve superiority of space domain

and cyberspace by strengthening coordination and cooperation with relevant countries through information sharing, consultation, exercise, and capacity building, while promoting measures concerning the development of international norms.

 See Chapter 1, Section 3 (Responses in the Space Domain, Cyber Domain and Electromagnetic spectrum)

1 Cooperation in Use of Space Domain

Regarding the use of the space domain, Japan will promote partnership and cooperation in various fields including Space Situational Awareness (SSA) and mission assurance of the entire space system, through consultations and information sharing with relevant countries and active participation in multilateral exercises among others.

Since 2019, the MOD/SDF has participated in the Space Chiefs' Conference hosted by the U.S. Armed Forces and engaged in the exchange of opinions on space policy. It has also taken part in the annual SSA multilateral tabletop exercise (Global Sentinel) and the Schriever Wargame, and is working to share the recognition of threats in space among multiple countries and acquire knowledge related to cooperation regarding SSA and mission assurance of the space system. In addition, in August 2021, the Chief of Staff, ASDF attended the Space Symposium hosted by the U.S. Space Foundation, where he exchanged opinions on space policy.

The MOD/SDF is also working on cooperation with countries other than the United States. For example, the Japan-Australia Space Security Dialogue is held to exchange opinions on space policy. With France, based on the agreement to strengthen bilateral dialogue on space domain at the Japan-France Foreign and Defense Ministers' Meeting in March 2015, the two countries decided to start the Japan-France Comprehensive Space Dialogue. At the 2nd Japan-France Comprehensive Space Dialogue in March 2017, in order to strengthen bilateral cooperation on SSA, the two countries signed a technical arrangement on information sharing pertaining to space situation awareness between the competent

authority of Japan and the Minister of Defense of the Republic of France, and agreed to promote specific cooperation initiatives. Furthermore, at the Japan-France "2+2" Meeting in January 2022, the ministers of the two countries reaffirmed their intention for Japan and France to cooperate in the fields of cyber and critical and emerging technologies, and shared the view that the countries would coordinate closely in addressing safety and security issues in outer space. In March 2022, the ASDF participated as a first-time observer in a multilateral space exercise (AsterX 2022) hosted by the French Air and Space Force.

In addition, the MOD/SDF is also working to train space personnel through space-related courses in Germany and Canada and is building relationships in those respective countries.

With the EU, it was decided to start the Japan-EU Space Policy Dialogue at the Japan-EU summit meeting in May 2014, and four dialogue sessions have been held. At the Japan-India summit meeting in October 2018, the two countries decided to start a space dialogue between the governments, and the MOD participated in the meetings held in March 2019 and November 2021.

 See Chapter 2, Section 2 (Strengthening Ability of Japan-U.S. Alliance to Deter and Counter Threats)
Section 1-2 (Promotion of Defense Cooperation and Exchanges)

VOICE

Voices of an SDF personnel who participated in the German Space Situational Awareness Course

The Space Operations Group (Fuchu City, Tokyo)**First Lieutenant IINO Yoshiki**

Guten Tag! I was assigned to the Space Operations Squadron in March 2021. (The Space Operations Squadron was renamed the Space Operations Group in March 2022.) Before that, I had almost no knowledge of the space domain, but now I am working on building up knowledge every day through education and work at my unit, despite being overwhelmed by the level of specialism. During this time, I was given the opportunity to participate in the German Space Situational Awareness Course held in Germany in November 2021.

This course is organized by the German Air Force and focuses on the topic of space situational awareness. Participating in the course are employees from the German Space Situational Awareness Center, along with members of units from around the world that specialize in the space domain. As there are only a handful of courses in the world that teach the topic of space

situational awareness, the course was a valuable opportunity to receive a highly specialized education, as well as an extremely beneficial experience.

Since the universe has no national borders, multilateral cooperation on top of efforts by individual countries is of vital importance in creating a reliable space situational awareness framework. As ways of further solidifying that cooperation, we were able to deepen our mutual understanding of the space situational awareness of participating countries through the course and build a community among course participants engaging in the space domain across many countries. I think that this is a significant and unmatched achievement.

I feel proud of the fact that I could take this course as a member of a specialist unit in the space domain. This experience will be one that I take full advantage of in my future endeavors. Danke schön!



In front of the facility where the author took the course



Spreading education within the unit

2 Cooperation in Use of Cyberspace

Regarding the use of the cyberspace, Japan will enhance its partnership and cooperation with relevant countries through measures such as sharing threat perception, exchanging views on response to cyber attacks, and participating in multilateral exercises.

The MOD has held cyber dialogues with the respective defense authorities of Australia, the United Kingdom, Germany, France, Estonia, and others to exchange threat perception and relevant initiatives taken by each country. With the NATO, the MOD has

held a cyber dialogue between defense authorities called “Japan-NATO Cyber Defense Staff Talks.” In addition, the MOD carries out initiatives looking at possible future operational cooperation, including December 2019 first official participation in the cyber defense exercise “Cyber Coalition 2019” hosted by the NATO, in which Japan had previously participated as an observer.

Furthermore, the MOD has participated in the International Conference on Cyber Conflict (CyCon) which is organized by the CCDCOE based in Estonia.

The MOD is further developing collaborative relationships with the NATO in the cyberspace through the dispatch of its personnel to the CCDCOE since March 2019. In April 2022, as in 2021, Japan officially participated in the cyber defense exercise “Locked Shields 2022” organized by the CCDCOE, forming a joint team with the United Kingdom.

In addition, IT Forums have been held between the defense authorities of Singapore, Vietnam, and Indonesia to exchange views on initiatives in the information communications area including cybersecurity and current trends in technology. With Vietnam, Japan signed the “Memorandum between the Ministry of

Defense of Japan and the Ministry of National Defence of the Socialist Republic of Viet Nam on Cybersecurity Cooperation” between the Japanese and Vietnamese defense authorities in November 2021. The MOD has been expanding cooperation through capacity building, for example by holding human resource development seminars on cybersecurity for Vietnamese Forces, and by holding the first online seminar for ASEAN countries in February 2022.

 **See** Section 1-2 (Promotion of Defense Cooperation and Exchanges)
Section 1-4 (Proactive and Strategic Initiatives for Capacity Building)

Section 4

Initiatives for Arms Control, Disarmament and Non-Proliferation

The proliferation of weapons of mass destruction (WMDs) and missiles that can deliver them, as well as the proliferation of not only conventional arms but also goods and sensitive technologies that can be diverted to military use, pose a pressing challenge to the peace and stability of the international community. Moreover, many countries are working on the regulation of certain conventional weapons, considering the need to maintain a balance between humanitarian perspectives and

defensive needs.

In order to deal with these issues, the international frameworks for arms control, disarmament, and nonproliferation have been developed under which Japan has played an active role.

See Fig. III-3-4-1 (Framework for Arms Control, Disarmament and Non-Proliferation Relating to Conventional Weapons, Weapons of Mass Destruction, Missiles and Related Materials, etc.)

1 Initiatives Focused on Treaties Relating to Arms Control, Disarmament, and Non-Proliferation

Japan actively participates in international initiatives for arms control, disarmament, and non-proliferation in regard to WMDs, in the form of nuclear, chemical, and biological weapons, as well as missiles that can deliver them, and associated technologies and materials.

Japan has contributed to the Chemical Weapons Convention (CWC) by offering its knowledge in the field of chemical protection since the negotiating stage and dispatching GSDF personnel who are experts on protection against chemical weapons to the Organisation for the Prohibition of Chemical Weapons (OPCW), which was established to continuously implement verification measures following the entry of the CWC into force. In addition, small quantities of the chemical substances under the regulation of the CWC are synthesized at the GSDF Chemical School (Saitama City), in order to conduct protection research. Thus, the

school has undergone inspections 11 times in total since the establishment of the OPCW, in accordance with the CWC regulations.

Moreover, the whole of the Japanese Government is also working on projects aimed at disposing of abandoned chemical weapons in China, in accordance with the CWC. The MOD/SDF has seconded GSDF and other personnel to the Cabinet Office to be in charge of this project, and since 2000, GSDF personnel with expertise in chemicals and ammunitions have been dispatched to conduct excavation and recovery projects on a total of 19 occasions.

In addition, the MOD has been cooperating in endeavors aimed at increasing the effectiveness of regulations and decisions, by dispatching MOD officials to major meetings such as those of the Biological Weapons Convention (BWC), as well as international

Fig. III-3-4-1

Framework for Arms Control, Disarmament and Non-Proliferation Relating to Conventional Weapons, Weapons of Mass Destruction, Missiles and Related Materials, etc.

Category	Weapons of Mass Destruction, etc.				Conventional Weapons
	Nuclear Weapons	Chemical Weapons	Biological Weapons	Delivery Systems (Missiles)	
Conventions on Arms Control, Disarmament and Non-Proliferation, etc.	Treaty on the Non-Proliferation of Nuclear Weapons (NPT) Comprehensive Nuclear-Test-Ban Treaty (CTBT)	Chemical Weapons Convention (CWC)	Biological Weapons Convention (BWC)	The Hague Code of Conduct Against Ballistic Missile Proliferation (HCOC)	Convention on Certain Conventional Weapons (CCW) Convention on Cluster Munitions (Oslo Convention) Anti-Personnel Mine Ban Convention (Ottawa Treaty) U.N. Register of Conventional Arms U.N. Report on Military Expenditures Arms Trade Treaty (ATT)
Export Control Frameworks Aimed at Non-Proliferation	Nuclear Suppliers Group (NSG)	Australia Group (AG)		Missile Technology Control Regime (MTCR)	Wassenaar Arrangement (WA)
New International Initiatives Aimed at Non-Proliferation of Weapons of Mass Destruction	Proliferation Security Initiative (PSI) United Nations Security Council Resolution 1540				

export control regimes in the form of the Australia Group (AG) and the Missile Technology Control Regime (MTCR). At the same time, SDF personnel were dispatched to training provided by the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO).

See Reference 53 (Dispatch of Ministry of Defense Personnel to International Organizations)

Japan has signed various conventions on the regulation of conventional weapons such as the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (CCW), based on humanitarian perspectives and security needs. In addition, Japan has signed the Convention on Cluster Munitions (Oslo Convention),¹ which was adopted outside the framework of the CCW. With the entry of this Convention, the disposal of all cluster munitions possessed by the SDF was completed in February 2015.

The Ministry dispatches personnel to Group of Governmental Experts meetings related to Lethal

Autonomous Weapons Systems (LAWS) and other events as necessary under the CCW framework. Discussions related to LAWS are under way from the perspectives of their characteristics, human-machine interactions, international law, and other matters. Japan is continuing its active involvement in the discussions, while also considering the standpoints of national security.

Furthermore, the MOD has actively cooperated in the initiatives of the international community that focus on the prohibition of anti-personnel mines by submitting annual reports that include data on Japan's exceptional stocks to the Secretariat of the Convention on the Prohibition of Anti-Personnel Mines.

In addition, the MOD/SDF provides an annual report under the frameworks of the UN Register of Conventional Arms, the UN Report on Military Expenditures and Arms Trade Treaty (ATT), which aim to increase the transparency of the military preparedness and military expenditure. It also dispatches personnel as needed to governmental expert meetings and other meetings for reviewing and improving these systems.

2 International Initiatives Aimed at Non-Proliferation of Weapons of Mass Destruction

Deeply concerned about the development of WMDs and missiles by countries such as North Korea and Iran, the United States announced its Proliferation Security Initiative (PSI)² in May 2003, and sought the participation of other countries therein. Various initiatives are being undertaken based on PSI; PSI interdiction exercises aimed at improving the ability to thwart the proliferation of WMDs and related items and meetings to consider issues on policies and legislations.

Since the 3rd PSI Meeting in Paris (September 2003), the MOD/SDF has collaborated with relevant organizations and countries, dispatching MOD officials and SDF personnel to various meetings, as well as engaging in ongoing participation in these exercises since 2004.

The MOD/SDF has participated in PSI maritime interdiction exercises, hosted by Japan, thrice, working in partnership with relevant organizations such as the

MOFA, the National Police Agency, the Ministry of Finance and the Japan Coast Guard, and participated in the PSI air interdiction exercise in July 2012, which Japan hosted for the first time. Japan participated in "Pacific Shield 18," a PSI maritime prevention exercise, in July 2018, to carry out training in activities to prevent the spread of WMDs with Australia, New Zealand, the ROK, Singapore, and the United States.

Based on the proliferation cases in the areas surrounding Japan, and from the perspectives of preventing the proliferation of WMDs and improving the response capability of the SDF, the MOD/SDF strives to strengthen nonproliferation frameworks including PSI, as well as holding various relevant exercises and meetings and participating in the same kind of activities which other countries hold.

See Fig. III-3-4-2 (Participation of MOD/SDF in PSI Interdiction Exercise (Since FY2012))

¹ Major producers and owners of cluster munitions such as the United States, China and Russia have not signed the Oslo Convention.

² An initiative that seeks to strengthen the relevant domestic laws of respective countries to the maximum possible extent, and considers measures that participating countries can jointly take while complying with existing domestic and international laws, in order to prevent the proliferation of WMDs and related materials.

Fig. III-3-4-2

Participation of MOD/SDF in PSI Interdiction Exercise (Since FY2012)

Date	Exercise	Location	Participation of the MOD/SDF
July 2012	PSI air interdiction exercise hosted by Japan	Japan	Joint Staff, Ground Staff, Air Staff, Air Defense Command, Air Support Command, Northern Army, Central Readiness Force, GSDF Seventh Chemical Weapon Defense Unit and Central Nuclear Biological Chemical Weapon Defense Unit, Internal Bureau (including two aircraft)
September 2012	PSI maritime interdiction exercise hosted by the ROK	ROK	Joint Staff, Maritime Staff, Internal Bureau (including one ship and one aircraft)
February 2013	PSI exercise co-hosted by the U.S. and UAE	UAE	Dispatch of observer (Joint Staff)
August 2014	PSI maritime interdiction exercise hosted by the United States	United States	Joint Staff (including one ship)
November 2015	PSI interdiction exercise hosted by New Zealand	New Zealand	Joint Staff
September 2016	PSI maritime interdiction exercise hosted by Singapore	Singapore	Joint Staff
September 2017	PSI maritime interdiction exercise hosted by Australia	Australia	Joint Staff, Ground Staff, Maritime Staff, Internal Bureau (including one aircraft)
July 2018	PSI maritime interdiction exercise hosted by Japan	Japan	Joint Staff, Ground Defense Command, Self Defense Fleet, Eastern Army, Yokosuka Regional Unit, Chemical School, Internal Bureau (including two vessels, two aircraft and three vehicles)
July 2019	PSI interdiction exercise hosted by ROK	ROK	Joint Staff and Chemical School
October 2021	PSI exercise hosted by Singapore	Singapore	VTC participation by the Joint Staff Office and GSDF Central Nuclear Biological Chemical Weapon Defense Unit

Section 5 Efforts to Support International Peace Cooperation Activities

The MOD/SDF has been proactively undertaking international peace cooperation activities working in tandem with diplomatic initiatives, including the use

of the Official Development Assistance (ODA) for resolving the fundamental causes of conflicts, terrorism and other problems.

1 Frameworks for International Peace Cooperation Activities

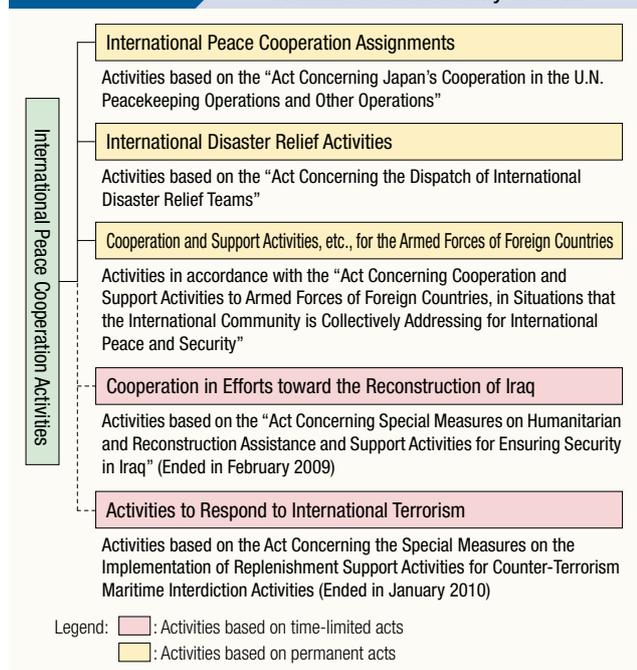
1 Framework of International Peace Cooperation Activities and Background to Stipulating Such Activities as One of the Primary Missions of the SDF

The international peace cooperation activities undertaken by the MOD/SDF to date are as follows: (1) international peace cooperation assignments such as UN peacekeeping operations (UN PKO); (2) international disaster relief activities to respond to large-scale natural disasters overseas; (3) activities based on the former Special Measures Act on Humanitarian Reconstruction

Assistance in Iraq; and (4) activities based on the former Anti-Terrorism Special Measures Act, and the former Replenishment Support Special Measures Act.

In 2007, international peace cooperation activities, which used to be regarded as supplementary activities,¹ were upgraded to become one of the primary missions of the SDF,² alongside the defense of Japan and the maintenance of public order. In March 2016, the Legislation for Peace and Security was enforced, which allows cooperation and support operations in response to Situations Threatening the International Peace and Security that the International Community is Collectively Addressing based on general laws without establishing a special measures act.

Fig. III-3-5-1 International Peace Cooperation Activities Conducted by the SDF



See Part II, Chapter 5 (Framework for Activities of the SDF and Others)
 Chapter 1, Section 5 (SDF Activities since Enforcement of Legislation for Peace and Security)
 Fig. III-3-5-1 (International Peace Cooperation Activities Conducted by the SDF)
 Reference 12 (Conditions Required for Main Operations of the Self-Defense Forces (Including Diet Approval) and Authority for the Use of Weapons Concerning Main Operations of the Self-Defense Forces)
 Reference 54 (Summary Comparison of Laws Concerning International Peace Cooperation Activities)
 Reference 55 (The SDF Record in International Peace Cooperation Activities)

2 Continuous Initiatives to Promptly and Accurately Carry Out International Peace Cooperation Activities

To be a proactive contributor to world peace, it is important for the SDF to be fully prepared for any future operations. For this reason, all the three branches of the

1 Affairs prescribed in Article 8 of the SDF Law (miscellaneous provision) or supplementary provisions
 2 Missions defined in Article 3 of the SDF Law. The primary mission is to defend Japan. The secondary missions are the preservation of public order, activities in response to situations in areas surrounding Japan (in 2007), and international peace cooperation activities. In accordance with the entry into force of the Legislation for Peace and Security in 2016, "situations in areas surrounding Japan" was revised to "situations that will have an important influence on Japan's peace and security."

SDF, namely the GSDF, MSDF and ASDF, designate dispatch stand-by units and always maintain a state of readiness.

In September 2015, the UN launched the Peacekeeping Capability Readiness System (PCRS) to enable the UN Headquarters to grasp PKO dispatch preparation status of each country more specifically in order to ensure the flexibility and readiness of international peacekeeping activities. In light of this change, Japan registered engineering units and staff officers of mission headquarters in March 2016. Also, in May 2020, Japan registered C-2 and C-130H transport aircraft for PCRS to enable air transport assistance for rapid PKO deployment.

Meanwhile, the SDF is enhancing information-gathering abilities and protection abilities, which are required for the SDF units to carry out their missions while ensuring the safety of personnel and units in international peace cooperation activities, etc. Furthermore, in order to respond to various environments and prolonged missions, the SDF is improving its capabilities for transport, deployment, and information communication, as well as developing a structure of logistic and medical support for conducting smooth and continuous operations.

With regard to the education necessary for engaging in international peace cooperation activities, the GSDF International Peace Cooperation Activities Training Unit, which belongs to the Ground Component Command, provides training for GSDF personnel to be deployed to international peace cooperation activities, as well as supports their training. In addition, the Japan Peacekeeping Training and Research Center (JPC) of the Joint Staff College offers not only basic education courses on international peace cooperation activities, but also specialized education to train personnel who can be appointed as contingent commanders of UN PKO

missions and staff officers of mission headquarters. These specialized courses are conducted by using UN standard training materials and foreign instructors.

Furthermore, since FY2014, the JPC has provided education for personnel from foreign militaries and other Japanese ministries and agencies. This initiative represents the approach taken by the MOD/SDF, which emphasizes the necessity of collaboration and cooperation with other related ministries and foreign countries, based on the current situation of more multi-dimensional and complicated international peace cooperation activities. The initiative aims to contribute to more effective international peace cooperation activities by enhancing collaboration in the field of education.

3 Welfare and Mental Health Measures for Dispatched SDF Units

The MOD/SDF is implementing various family support and mental health support measures for dispatched SDF personnel and their families to alleviate anxieties they may go through during the dispatch. For example, depending on the characteristics of the duties of the unit to be dispatched, the MOD/SDF provides SDF personnel with necessary measures such as the following: (1) education before the dispatch on necessary knowledge on how to reduce stress; (2) mental health check before, during, and after the dispatch; (3) counseling on anxieties and concerns during the dispatch, conducted by staffs specially trained for carrying out mental health care; (4) dispatch of a mental health care team including a medical officer with expertise on mental health care; (5) stress reduction education upon returning to Japan; and (6) medical checkup after returning to Japan.

 See Part IV, Chapter 2, Section 1-3 (Measures Aimed at Ensuring Effective Use of Human Resources)

2 Initiatives to Support UN PKO, etc.

As a means to promote peace and stability in conflict areas around the world, UN PKO have expanded their missions in recent years to include such duties as the Protection of Civilians (POC), the promotion of political processes, providing assistance in Disarmament, Demobilization and Reintegration (DDR) of former soldiers, Security Sector Reform (SSR), the rule of

law, elections, human rights, etc., in addition to such traditional missions as ceasefire monitoring. To date, there are 12 UN PKO missions ongoing (as of the end of March 2022).

International organizations, such as the Office of the UN High Commissioner for Refugees (UNHCR), governments, and NGO conduct relief and restoration

Column

Efforts of the Ministry of Defense (the MOD)/the Self-Defense Forces (the SDF) on the 30th anniversary of the enactment and enforcement of the PKO Act

The year 2022 marks the 30th anniversary of the facility unit of the Ground Self-Defense Force (GSDF) being dispatched to the United Nations Transitional Authority in Cambodia (UNTAC) as UN PKO with the enactment and enforcement of the International Peace Cooperation Act. Since the dispatch of forces to Cambodia, the Ministry of Defense (the MOD) and the Self-Defense Forces (the SDF) have dispatched their personnel to many areas around the world, such as the Golan Heights, East Timor, Haiti, and South Sudan. Currently, the MOD and the SDF are sending four headquarters personnel to the United Nations Mission in the Republic of South Sudan (UNMISS) and also two headquarters personnel to the Multinational Force and Observers (MFO) on the Sinai Peninsula in an effort to contribute to the peace and stability of the world.

In addition, the MOD and the SDF promote actions making use of an accumulation of experience and capability acquired through the dispatch of their forces to UN PKO and other missions. More specifically, under the UN Triangular Partnership Programme (UNTPP), which Japan launched together with the United Nations, a delegation of GSDF instructors conduct training for African and Asian military personnel in facilities and medical areas where the SDF has expertise and has been regarded highly. These trainings support UN PKO through building capacity of African and Asian countries that back up PKO by dispatching of their own personnel. In addition, in order to improve the performance of each PKO mission by consolidating many countries' know-how about PKO and standardizing the activities of their dispatched forces, the UN works with TCCs (Troop Contributing Countries) to develop manuals for military units in UN PKO. The GSDF takes initiative in developing manuals for military engineer units as an

effort to contribute to UN PKO through a multi-faceted approach. Moreover, in 2020 the ASDF registered its transport aircraft with the Peacekeeping Capability Readiness System (PCRS) to provide TCCs with air-transport for deploying their units.

In bilateral cooperation as well, the SDF has conducted capacity building assistance for Cambodia, Mongolia, and Vietnam in areas such as training of trainers for road measurement and road construction, sharing knowledge of and demonstrating packing goods. In addition, in multilateral frameworks, the MOD acts as joint chair for the ASEAN Defense Ministerial Meeting (ADMM-Plus) and PKO experts' meeting with Vietnam from 2021 to 2024. We contribute to helping participating countries, including ASEAN, share knowledge and experience regarding UN PKO and build up capabilities.

The SDF's activity is regarded highly by the international community. The MOD and the SDF will continue to contribute to the peace and stability of the world more actively through activities making full use of the strengths of the SDF on the basis of their past performance results.



A scene from the ground of Cambodian PKO (reproduction from the 2012 Defense of Japan)



A group photo of UNTPP Africa's 7th training in June 2019



Intelligence staff officer participating in a UN medal awarding ceremony

Fig. III-3-5-2

Outline of MFO Operations and Relevant Maps

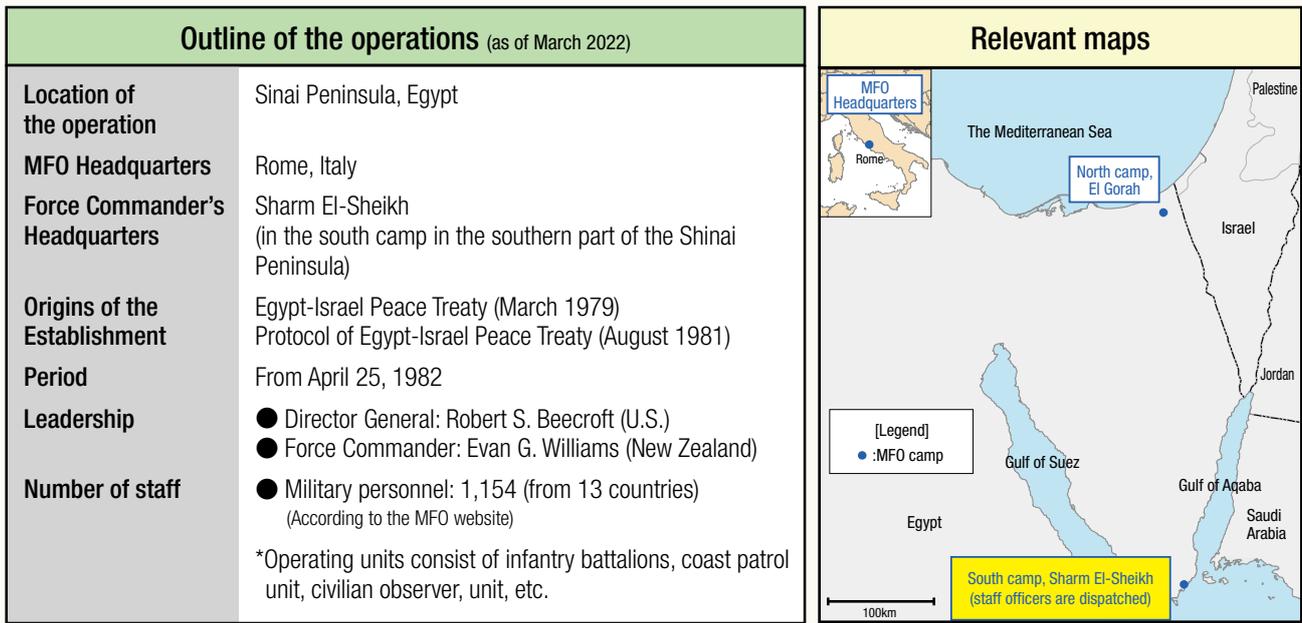
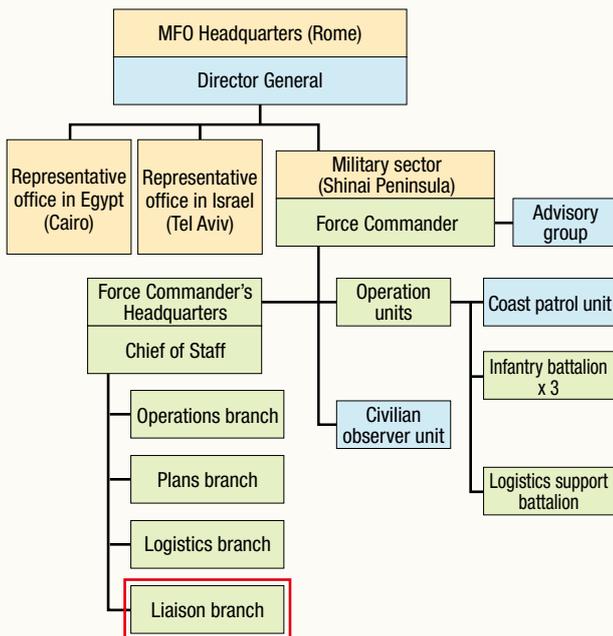


Fig. III-3-5-3

Organizational Chart of MFO



Note: Red line indicates a department/division in which Japanese personnel are placed.



GSDF personnel in the MFO (January 2022)

activities for the victims of conflicts and large-scale disasters from a humanitarian perspective and from the viewpoint of stabilizing affected countries.

Japan has been promoting international peace cooperation assignments in various regions, including Cambodia, the Golan Heights, Timor-Leste, Nepal, and South Sudan for more than 25 years, and the year 2022 marks the 30th anniversary of the enactment and enforcement of the International Peace Cooperation Act.

The results of these activities have been highly praised both inside and outside of Japan.

In addition to continuous dispatch of staff officers to UNMISS, Japan is able to participate in Internationally Coordinated Operations for Peace and Security along with enforcement of the Legislation for Peace and Security. In April 2019, Japan started to dispatch staff officers to the Multinational Force and Observers (MFO).

Japan will actively contribute to international peace cooperation activities through such activities as dispatch of personnel to mission headquarters and capacity building in Japan's fields of expertise by using accumulated experience so far and working on human resource development.

1 Dispatch to the MFO

(1) Significance of Dispatch to the MFO

In August 1981, the MFO was established by the Protocol to the Egypt-Israel Peace Treaty as an organization to undertake the tasks and responsibilities of the UN force and observer mission stipulated in the treaty. Since 1982, when its activities started, by facilitating dialogue and confidence building between Egypt and Israel, the MFO has contributed to peace and stability in the Middle East, which is a foundation of peace and prosperity for Japan.

Amidst this, the MFO requested that Japan send staff officers to its headquarters, and, with a view to making proactive contributions to international peace efforts, the Cabinet decided on the implementation of international peace operations in the Sinai Peninsula in April 2019, and dispatched two staff officers to the MFO as Japan's first activity for the purpose.

 See Chapter 1, Section 5-3 (Other Efforts and Activities, etc.)

(2) Activities by Staff Officers and Others

The two officers are engaging in liaison and coordination between governments of the two countries or other relevant organizations and the MFO as a Deputy Chief of Liaison and an Assistant Liaison Operation Officer at the MFO Headquarters, which is located in the south camp at Sharm El-Sheikh in the southern part of the Sinai Peninsula.

Additionally, in order to help the two officers dispatched to the MFO carry out activities smoothly and effectively, one liaison and coordination personnel is dispatched to Cairo city, Egypt, to liaise and coordinate with the relevant organizations in the dispatched country.

These activities express Japan's commitment to more active involvement in the peace and stability of the Middle East. It is also expected to promote collaboration with the other countries dispatching officers, including the United States, and create new opportunities for human resource development.

 See Fig. III-3-5-2 (Outline of MFO Operations and Relevant Maps)
Fig. III-3-5-3 (Organizational Chart of MFO)

2 UNMISS (United Nations Mission in the Republic of South Sudan)

(1) Significance of the Dispatch of Personnel to UNMISS

In July 2011 following South Sudan's independence,

with the objective of consolidating peace and security as well as helping establish necessary conditions for the development of South Sudan, the UNMISS was established. Japan was requested by the UN to cooperate with UNMISS, particularly through the dispatch of GSDF engineering units. The Cabinet approved the dispatch of two staff officers (logistics and database officers) to UNMISS in November 2011, and in December it decided to dispatch an SDF engineering unit, Coordination Center, and an additional staff officer (engineering officer). In addition, the Cabinet approved the dispatch of one staff officer (air operations officer) in October 2014. The year 2021 marks the 10th year since these dispatches started.

South Sudan shares borders with six countries and is positioned in a highly important location, connecting the African continent on all four points of the compass. The peace and stability of South Sudan is not only essential for the country itself, but also for the peace and stability in its neighboring countries, and by extension, Africa as a whole, as well as a crucial issue that should be dealt with by the international community. Based on the accumulated experience through past PKO, the MOD/SDF has contributed to the peace and stability of South Sudan by dispatching engineering units for infrastructure development, on which the UN places great expectations.

 See Part I, Chapter 3, Section 10-8 (Situation in South Sudan)

(2) Activities by Dispatched Engineering Units

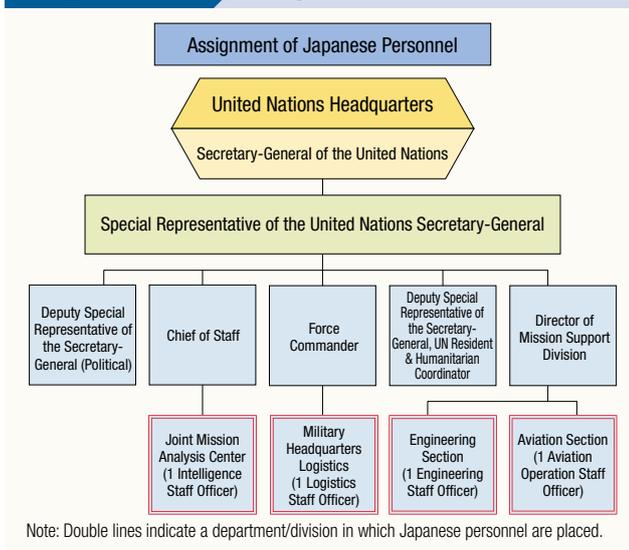
Since the commencement of its engineering activities within UN facilities in Juba in March 2012, the dispatched engineering unit steadily expanded its activities. The SDF continued to dispatch over 300



GSDF personnel in the UNMISS (April 2022)

Fig. III-3-5-4

Organization of UNMISS



personnel after the second unit took over, and carried out activities with great significance, such as repairing roads and constructing facilities for displaced people while ensuring the safety of the personnel.

Japan could move on to a new phase regarding engineering activities in Juba that the SDF was in charge of. Considering the above-mentioned issues in a comprehensive manner, in March 2017, the Government of Japan came to the conclusion that the SDF engineering unit would withdraw from Juba around the end of May 2017. SDF personnel engaged in withdrawal work, then sequentially withdrew from South Sudan, and terminated the operations by the engineering unit in UNMISS. At the conclusion of their activities, the dispatched engineering units repaired a total of approximately 260 km of roads and developed a total of approximately 500,000 m², etc., which are the largest achievements to date in Japan's PKO activities.

In response to a request from the UN to transfer items possessed by the dispatched engineering unit such as heavy machinery, vehicles, and shipping containers for residential use, Japan transferred these items to UNMISS with no charge, intending to make Japan's cooperation with UNMISS more effective. Prior to this transfer of items, the MOD, responding to a request from UNMISS, provided training on the operation and maintenance of heavy machinery to UNMISS personnel, so that UNMISS would be able to conduct activities in a smooth manner using these heavy machinery and other

equipment even after the withdrawal of the Japanese unit.

These dedicated activities by the dispatched engineering unit were highly appreciated and valued by the UN and South Sudan.

(3) Activities by Command Post Staff Officers and Others

Personnel dispatches to the UNMISS headquarters are continuing. Four GSDP members (logistics officer, intelligence officer, engineering officer, and air operations officer) currently carry out duties at the UNMISS headquarters. Specifically, the logistics officer procures and transports goods needed in UNMISS activities, the database officer collects and compiles information on security conditions, the engineering officer plans and proposes UNMISS engineering activities, and the air operations officer creates flight plans, etc., for run by UNMISS.

Additionally, a liaison staff member is dispatched to the liaison office in the Embassy of Japan in South Sudan to support activities of the Japanese staff officers. These staff members help interactions between the government of South Sudan and the International Peace Cooperation Corps in South Sudan with the aim of ensuring smooth and efficient cooperation with UNMISS.

They will continue to contribute to activities as UNMISS members.

 See Chapter 1, Section 5-3 (Other Efforts and Activities, etc.)
Fig. III-3-5-4 (Organization of UNMISS)

3 Dispatch of MOD Personnel to the UN Secretariat

The MOD/SDF dispatches personnel to the UN Secretariat for the purpose of actively contributing to the UN efforts to achieve international peace and for the purpose of utilizing their experiences in Japan's PKO activity. As of March 2022, one of the SDF personnel (action officer level) is involved in the military planning for UN peacekeeping mission at the UN Department of Peace Operations (DPO), and one SDF personnel and one administrative official (both action officer level) are working on the United Nations Triangular Partnership Programme (UNTPP)³ at the UN Department of

³ Acronym for the United Nations Triangular Partnership Programme. A partnership for supporting the capability building of personnel from UN PKO troop contributing countries through cooperation among the UN, PKO troop contributing countries (TCCs), and supporting member states that possess technologies and equipment.

Operational Support (DOS).

In addition, since December 2002, including personnel currently dispatched, Japan has sent a total of seven SDF personnel (one director level and six action officer level) to the UN DPO as well as one SDF personnel and three administrative officials (all action officer level) to the UN DOS.

 See Reference 53 (Dispatch of Ministry of Defense Personnel to International Organizations)

4 Dispatch of Instructors to PKO Training Centers

To support PKO undertaken by African and other countries, the MOD/SDF has dispatched SDF personnel as instructors to PKO training centers in Africa and other countries that provide education and training for UN peacekeepers to contribute to peace and stability by enhancing the capacity of the centers.

 See Reference 53 (Dispatch of Ministry of Defense Personnel to International Organizations)

5 Support to the UNTPP (UN TPP United Nations Triangular Partnership Programme)

Japan has so far earned unquestionable trust in the areas of engineering and transport that are essential for promoting smooth peacekeeping operations. To continue to support the rapid deployment of peacekeeping missions and implement high quality activities, Japan expressed its active support at the PKO Summit in September 2014, and it was embodied by the UNTPP.

The UNTPP was founded using funds from Japan as a project to support training for military engineers and the procurement of heavy equipment by the UN DOS. Japan has been dispatching SDF personnel to the International Peace Support Training Centre (IPSTC) in Nairobi, Kenya, as trainers since the pilot training in September 2015. From January to March 2022, SDF personnel were dispatched as trainers to the Kenya Armed Forces' Humanitarian Peace Support School in Nairobi to provide training on heavy machinery operation and maintenance to engineering personnel in the African region. From the start of the program to March 2022, a total of 184 GSDF personnel have been dispatched to Africa to provide 10 training sessions for a total of 312 trainees from eight African countries.

Considering that 30% or more of PKO personnel are from Asia, Japan decided to implement the program for the first time in Asia and the surrounding area. The program provides training on heavy engineering piloting for engineering personnel. Since a 2018 trial training, GSDF personnel have been dispatched as trainers to Vietnamese military garrisons in Hanoi, and from November to December 2019 they conducted engineering equipment training for the Vietnamese engineering personnel at the garrisons. In addition, from February to March 2020, Training-of-Trainers (ToT) for engineering equipment was conducted for military personnel from several Asian countries. From the start of the program until March 2022, a total of 66 GSDF personnel were dispatched to Vietnam to provide a total of three training sessions for 56 personnel from nine countries in Asia and the surrounding area.

In addition, the UN decided to extend the scope of support under this program to the field of sanitation, given that strengthening sanitation capacity to ensure the safety of deployed personnel has become an issue in UN peacekeeping operations. In response, the UN Field Medical Assistant Course (UNFMAC), which aims to train personnel who can provide first aid before medics or medical team provide specialized treatment in areas of PKO operations, was implemented in October 2019. In the course, eight instructors, including two GSDF officers, trained 29 personnel at the UN Regional Service Centre Entebbe in Uganda.

Furthermore, in December 2021, as part of the UNTPP, Japan conducted an online Construction Process Management Course for engineering personnel in the Asian region. This course, the first online program to be conducted by Japan within the framework of the UNTPP, provided training on construction management and problem solving methods for UN PKO missions. In the course, three GSDF personnel served as instructors and conducted training for 25 military engineers from Indonesia, Cambodia, and Vietnam.

6 Revision of the UN Peacekeeping Missions Military Engineer Unit Manual

In order to play a more leading role in international peace cooperation activities, the MOD/SDF has served as the chair of the working group on military engineering since 2013 with the aim of supporting the development of UN

peacekeeping unit manuals,⁴ and has contributed to the completion of the UN Peacekeeping Mission Military Engineer Unit Manual.

In 2018, the UN asked Japan to serve as the chair of the working group again for revision of the manual. For the MOD/SDF, this was a meaningful opportunity to make contributions by using the experiences and capabilities acquired through the past PKO and other missions. The MOD/SDF decided to serve as the chair again to handle the revision of the Military Engineer Unit Manual, and submitted the revised manual to the UN in July 2019 after holding four expert meetings

to complete the revision process. In addition, for the revision of the Specialized Training Materials (STM) for the UN Peacekeeping Mission Military Engineer Unit Manual, the MOD/SDF held three working group meetings in total, following the first working group meeting held via video teleconference in April 2021. In November 2021, two instructors from the Engineer School were dispatched to Switzerland to conduct a trial training and submit the revised draft of the UN Peacekeeping Mission Military Engineer Unit Manual STM to the UN.

3 International Disaster Relief Activities

In recent years, the role of military affairs has become more diverse, and opportunities for military to use their capabilities in HA/DR are growing. To contribute to the advancement of international cooperation, the SDF has also engaged in international disaster relief activities proactively from the viewpoint of humanitarian contributions and improvement of the global security environment.

To this end, the SDF maintains its readiness to take any necessary actions based on prepared disaster relief operation plans. In consultation with the Minister of Foreign Affairs, the SDF has been proactively conducting international disaster relief activities, which fully utilize its functions and capabilities, while taking into consideration specific relief requests by the governments of affected countries and disaster situations in these countries.

See Reference 55 (The SDF Record in International Peace Cooperation Activities)

1 Outline of the Japan Disaster Relief Team Law

Since the enactment of the Law Concerning the Dispatch of the Japan Disaster Relief Team (Japan Disaster Relief Team Law) in 1987, Japan has engaged in international disaster relief activities in response to requests from the governments of affected countries and international organizations. In 1992, the Japan Disaster Relief

Team Law was partially amended, enabling the SDF to participate in international disaster relief activities and to transport its personnel and equipment for this purpose.

See Reference 12 (Conditions Required for Main Operations of the Self-Defense Forces (Including Diet Approval) and Authority for the Use of Weapons Concerning Main Operations of the Self-Defense Forces)

2 International Disaster Relief Activities by the SDF and SDF's Posture

Responding to specific relief requests by the governments of affected countries and the scale of disaster situations in these countries, the SDF's capabilities in international disaster relief activities encompass (1) medical services, such as first-aid medical treatment and epidemic prevention; (2) transport of relief items, patients and personnel by helicopter and other means; and (3) water supply activities using water-purifying devices. In addition, the SDF uses transport aircraft and ships to carry disaster relief personnel and equipment to the affected area.

The Ground Component Command regional units of the GSDF and other relevant GSDF units maintain their readiness to ensure that they can carry out international disaster relief activities in an independent manner anytime when needed. The Self Defense Fleet of the MSDF and Air Support Command of the ASDF

⁴ The UN has prepared manuals that prescribe the purpose, capabilities, and duties of each service in order to clarify the capabilities required of units dispatched to PKO and to promote understanding among participating countries. The UN Military Engineer Unit Manual is one such manual. In addition to military engineering, UN peacekeeping manuals cover 10 areas in total: military police, aviation, maritime, riverine, signals, special forces, transport, logistics, and Force Headquarters support.

also constantly maintain their readiness to transport personnel and their supplies to disaster affected areas. Furthermore, in April 2015, the MOD/SDF also improved its readiness to be able to swiftly respond to a request for search activities using MSDF fixed-wing patrol aircraft.

3 International Disaster Relief Activities for Damage Caused by the Eruption of a Volcanic Island in the Kingdom of Tonga

On January 15, 2022, the large-scale eruption of an underwater volcano in Tonga triggered a tsunami and falling ash, resulting in significant damage.

On January 20, 2022, it was decided that the SDF would carry out international disaster relief activities in response to a request for relief made by the government of the Kingdom of Tonga to Japan.

During this mission, C-130H transport aircraft made four deliveries to Tonga totaling approximately 17 metric tons of emergency relief supplies, including drinking water, pressure washers, and canned food. Meanwhile, the landing ship JS “Osumi,” carrying CH-47 helicopters, delivered approximately 210 metric tons of relief supplies such as drinking water and tools for removing volcanic ash.

The Minister of Defense issued an order to end the mission on February 17, 2022, bringing the international disaster relief activities involving approximately 370 personnel to an end. The fact that Japan was able to carry out this mission quickly and appropriately in the midst of the ongoing COVID-19 pandemic while coordinating closely with partner countries in the Indo-Pacific region, such as Australia and New Zealand, demonstrated Japan’s commitment to peace and stability in the region through action.

Part **IV**

Core Elements Comprising Defense Capability, etc.

Chapter 1

Measures Relating to Training and Exercises

Chapter 2

**Establishing the Respective Training
Environments**

Chapter 3

Enhancement of Medical Functions

Chapter 4

Measures on Defense Equipment and Technology

Chapter 5

Enhancing Intelligence Capabilities

Chapter 6

**Initiatives to Live in Harmony with Regional
Society and the Environment**

In order to fulfill the SDF's obligation of defending our nation, it is essential for all personnel and every unit to constantly maintain and improve a high level of proficiency from peacetime. The SDF can function as a deterrent to discourage invasion by other countries and ensure its response capabilities in case an invasion occurs only when it is upheld by such proficiency. Accordingly, the SDF has been working day after day to maintain and enhance its defense capabilities through joint training and various exercises conducted by GSDF, MSDF, and ASDF.

In addition, in order to reinforce the deterrence and response capabilities of the Japan-U.S. Alliance, each service of the SDF steadily conducts bilateral/multilateral training with the corresponding U.S.

military branch, as well as Japan-U.S. bilateral joint exercises, deepening the content year after year.

Furthermore, in order to strategically promote multi-faceted and multi-layered defense cooperation based on the vision of a "Free and Open Indo-Pacific," the SDF is actively engaged in bilateral training and exercises with allies and friendly nations in the broad Indo-Pacific region. Through such training and exercises, Japan is striving to strengthen our partnerships with other countries in the Indo-Pacific region, which is closely connected to our security, and deepening cooperation in responding to the global security challenges and destabilizing factors to which it is difficult for a country to respond individually.

Section 1

Training and Exercise Initiatives

1

Training to Reinforce Japan's Deterrence and Response Capability

The MOD/SDF is actively conducting various high-level bilateral/multilateral training and exercises, and working to acquire further deterrence and response capabilities.

 See Fig. IV-1-1-1 (Major Training to Reinforce Japan's Effective Deterrence and Response Capability)

1 Main Training Activities Contributing to Strengthening Japan's Own Architecture for National Defense

(1) Joint Training of the SDF

To fully exert Japan's defense capability during contingencies, it is important for the SDF to prepare to be able to seamlessly and fully exert its deterrence and response capabilities by continuously conducting training on joint operations of the GSDF, MSDF, and ASDF on a steady-state basis.

To do so, the SDF has been conducting SDF joint exercises since 1979 to train joint capabilities as a field

training exercise and command post exercise generally in alternate years.

[SDF Joint Exercise 2021]

In November 2021, the SDF conducted its Joint Exercise 03JX (field training exercise). While working on building a Multi-Domain Defense Force, in this exercise, the SDF conducted training in new areas such



State Minister of Defense Oniki observing an SDF joint exercise



as coordination for space surveillance, responding to cyber attacks, and integrated electronic warfare training as well as comprehensive missile defense, combining command post activities with field training to maintain and enhance the SDF’s joint capabilities including cross-domain operations. In addition, approximately 30,000 troops from GSDF, MSDF, and ASDF participated in the exercise, and for the first time U.S. forces joined parts of the SDF joint exercise, maintaining and reinforcing U.S.-Japan coordination procedures. This training served not only to maintain and reinforce the SDF’s readiness and ability to actively contribute to regional peace and stability, but also to demonstrate our

firm intent to defend our nation.

(2) Training by Each Self-Defense Force (SDF)

The high level of proficiency of each SDF service is the fundamental premise for the defense capability to be fully demonstrated through joint operations. As such, each SDF continuously conducts individual training for its troops and organizational training for its units, forming the foundation of a strong SDF.

a. GSDF

The Ground Self-Defense Force (GSDF) conducts training for the operation of its units according to their respective fields including infantry, field artillery, armor,



MOVIE: 03JX

URL: <https://twitter.com/jointstaffpa/status/1468135431103737857>



MOVIE: GSDF Exercise 2021

URL: <https://youtu.be/iQLdZdFVUwA>



and military engineering as well as joint interdisciplinary training, in which units of every class cooperate with units from different fields.

For example, the GSDF conducts maneuver deployment training, in which rapid deployment divisions and brigades are mobilized nationwide, and field exercises at the regional army level to improve its response capabilities for various contingencies and other situations.

In addition, the SDF conducts parachute drop training from U.S. Air Force and other aircraft in Japan

and overseas, training for amphibious operations, and live-fire training for Chu-SAM/SSM units to enhance various tactical skills necessary for joint and bilateral cross-domain operations.

[GSDF Exercise]

The GSDF conducted the GSDF exercise from September to November 2021 at approximately 160 garrisons and maneuver areas nationwide. This exercise was the first field training since 1993, nearly 30 years ago, in which nearly all units and troops participated, numbering approximately 100,000 personnel. The

VOICE Voice of SDF personnel who participated in a Ground Self-Defense Force exercise

2nd Logistic Support Regiment, GSDF (Asahikawa City, Hokkaido Prefecture)

Colonel KIKUCHI Koji

Over roughly 40 days across September and October 2021, the 2nd Logistics Support Regiment participated in a Ground Self-Defense Force exercise, which was conducted for the first time in about 30 years. As a part of the 2nd Division, the regiment took part in exercises involved in maneuver and deployment from its location in Hokkaido to the Hijudai Maneuver Area in Oita Prefecture, which is roughly a distance of 2,000 km, by SDF vehicles, a Maritime Self-Defense Force transport ship, ferries, and other private means of transportation. After arriving at the maneuver area, participants conducted logistics support activities while being mindful of enemy monitoring activities via satellite, which is a new area of threat. The exercise was a golden opportunity for the unit to test out the techniques we have been polishing up to now, as well as the results of training fostered over the years. As a unit, we learned a great deal, and moreover,



The author (second from the left) reporting the status of the local unit's activities to the Chief of Staff, GSDF

the personnel who took part gained a great deal of confidence. I feel the major achievements were the following: (1) following the division putting all of its efforts into carrying out maneuvers and deployment across the country, participants learned many lessons by actually experiencing the scale of logistics and medical care needed in implementing operations, (2) the unit was able to pinpoint areas requiring adjustment in respect to cooperating with relevant government offices and private companies, as well as the application of laws and regulations and other factors, so as to improve the effectiveness of operations, and (3) the exercise enabled personnel involved to become more cognizant of their duties.

I feel that participating in exercises that involved placing importance on establishing logistics, medical care, and other operational bases, thereby successfully concluding the duties of the Logistic Support Regiment, contributed to improving the effectiveness of Ground Self-Defense Force operations, including cross-domain operations.



Personnel who took part in the logistics support mission after maneuver and deployment

GSDF conducted five types of training with a focus on operational preparations that determine the direction an operation will later take, improving its mission performance, readiness, and operational effectiveness as well as reinforcing its deterrence and response capabilities: (1) mobilization readiness training in which each garrison and vice-camp makes the necessary preparations for defense operations; (2) maneuver deployment training in which units are maneuvered and deployed cross-regionally utilizing U.S. military and commercial transport capabilities in addition to GSDF, MSDF, and ASDF transport capabilities; (3) logistics and medical training in which equipment and supplies are transported on a nationwide scale; (4) system communications training in which Signal units are deployed prior to other units to successively enhance and expand system communications; and (5) deployment readiness training in which Light Infantry regiments are formed composed mainly of SDF Reserve Personnel.

b. MSDF

MSDF uses a training system that enhances proficiency in stages, as a specific period that takes account of the timing of crewmember rotations and naval vessel inspections and repairs is determined as the cycle, which is then divided into multiple stages. In the early stages of training under this system, a transition occurs to applied unit training in accordance with the enhancement of the proficiency with naval vessels and aircraft, which are the basic units of fighting capability, and collaborative training between naval vessels and between naval vessels and aircraft is conducted. For example, the MSDF has been conducting MSDF field exercises since 1955 in which units nationwide are



Firing of training ammunition by ASDF Patriot

mobilized to enhance responsiveness. It is also working to enhance various tactical skills through mine disposal training in Iwo To, mine warfare training in Hyuga-nada Sea, Mutsu Bay and Ise Bay, and bilateral minesweeping special training with the U.S. in each location.

Furthermore, the SDF is working to enhance various tactical skills utilizing favorable overseas training infrastructure with the cooperation of the U.S. Navy by conducting overseas deployment training in the United States for destroyers and submarines, in waters around Guam for minelayers, and for aircraft in the United States.

c. ASDF

In order to develop the capability of its personnel to fully utilize cutting-edge technologies, ASDF conducts unit-specific training of fighter aircraft, air warning and control, anti-air guided missiles and others, with a focus on enhancing the professional expertise of the individual at the initial stages of the training. The aim is to enable ASDF personnel and equipment such as aircraft to function together as whole. As proficiency is enhanced, the ASDF conducts training for coordination procedures between units, and further conducts comprehensive training with air transport, rescue, and other units added.

For example, the ASDF conducts the field training exercise Air Defense Command comprehensive training, in which all relevant units in Japan are mobilized, and exercises for each function, as well as PAC-3 maneuver deployment training and overseas flight training to enhance maneuver deployment capabilities and responsiveness. It also conducts live-fire training for Patriot missiles for surface-to-air missile units that utilizes favorable training infrastructure abroad, strengthening air defense combat operation capabilities.

Furthermore, it is working to enhance the mission performance of airlift units by utilizing the Advanced Airlift Tactics Training Center (AATTC) in the United States.

2 Main Training and Exercises Contributing to Strengthening Ability of Japan-U.S. Alliance to Deter and Counter Threats

The Japan-U.S. Alliance is essential to our national security, and Japan-U.S. bilateral exercises play a significant role in enhancing our deterrence and response capabilities. The SDF has consistently conducted

bilateral/multilateral training with each service as well as Japan-U.S. bilateral joint exercises (field training exercises and command post exercises) to improve the SDF's tactical skills and strengthen coordination with U.S. forces, demonstrating the Japan-U.S. unified commitment to and capacity for achieving peace and stability in the region.

(1) Japan-U.S. Bilateral Joint Exercises

Since 1986, the SDF has been conducting the Japan-U.S. Bilateral Joint Exercises, “Keen Sword” (field training exercise) and “Keen Edge” (command post exercise), to train operation procedures of the SDF and the Japan-U.S. Joint Response Plan for armed attack situations, etc., and to work to enhance the readiness of the SDF and interoperability between Japan and the United States. For FY2021, the SDF conducted the FY2021 Japan-U.S. Bilateral Joint Exercise (command post exercise) from January to February 2022 to train the Japan-U.S. joint response for the defense of our nation as well as command post and staff activities for the SDF's joint capabilities.

In addition, the SDF also conducts Japan-U.S. joint air and missile defense exercises to maintain and enhance its joint capabilities and Japan-U.S. joint response capabilities for comprehensive air and missile defense, including Japan-U.S. joint missile response.

(2) Japan-U.S. Bilateral Training by Each Service

a. GSDF

GSDF is working to enhance the effectiveness of Japan-U.S. joint response as well as cross-domain operation capabilities, strengthening the deterrence and response capabilities of the Japan-U.S. Alliance by continuously



Parliamentary Vice-Minister of Defense Iwamoto observing the Japan-U.S. Bilateral Regional Army Command Post Exercise “Yamasakura”

conducting the Japan-U.S. bilateral regional army command post exercise “Yamasakura,” the largest command post exercise between the GSDF and the U.S. Army, as well as field training with the U.S. Army and U.S. Marines.

[Japan-U.S. Bilateral Regional Army Command Post Exercise (YS-81)]

In December 2021, the GSDF and U.S. ground forces conducted the Japan-U.S. Bilateral Regional Army Command Post Exercise “YS-81.” The exercise was the largest Japan-U.S. bilateral command post exercise between the GSDF and the U.S. Army, aimed at enhancing Japan-U.S. coordination capabilities based on SDF cross-domain operations and U.S. Army multi-domain operations, with the new domains of outer space, cyberspace, and electromagnetic spectrum added in addition to the conventional warfighting domains.

[Orient Shield 21 (Field Training Exercise with the U.S. Army)]

From June to July 2021, the GSDF Middle Army and other regional armies conducted the field training exercise “Orient Shield 21” with the U.S. Army in Japan Headquarters and others. This training is the largest field training exercise conducted by the GSDF and the U.S. Army in Japan, and trains mutual coordination procedures for when Japanese and U.S. ground forces conduct joint operations. During this year's training, U.S. Army Patriot units were deployed to Amami Oshima Island for the first time and conducted bilateral anti-aircraft combat training with GSDF mid-range surface-to-air guided missiles. Furthermore, the two countries enhanced their joint firepower capabilities by conducting bilateral firepower combat training (live-fire) for the first time at the Yausubetsu Maneuver Area using the U.S. Army High Mobility Artillery Rocket System (HIMARS) and the GSDF Multiple Launch Rocket System (MLRS).

In addition, the Middle Army and the U.S. Army 40th Infantry Division worked to enhance their coordination capabilities based on the SDF's cross-domain operations and the Army's multi-domain operations by training joint targeting and others with a view to the Japan-U.S. bilateral regional army command post exercise “Yamasakura” (YS-81).

[Joint Drop Training with the U.S. Army]

In July 2021, the GSDF conducted joint drop training (field training exercise) with the U.S. Army at the Andersen U.S. Air Force Base in Guam among other

locations. It trained a series of Japan-U.S. joint action, from parachute drops from fixed-wing aircraft and subsequent landing combat through to ground combat, intended to strengthen readiness and further enhance the high level of joint Japan-U.S. operational capabilities for airborne operations. This training, joined by the GSDF 1st Airborne Brigade and others, was the first time a joint Japan-U.S. parachute drop flying directly from Japan to Guam. The joint creation of the operational plan and other activities have strengthened the GSDF's readiness and enhanced the high level of Japan-U.S. joint operational capabilities for airborne operations. The training was conducted based on the agreement reached at the Japan-U.S. Defense Ministerial Meeting in March 2021 that "it is important to strengthen readiness through measures such as various high-end training including Japan-U.S. bilateral exercises."

[Resolute Dragon (Field Training Exercise with the U.S. Marines)]

In December 2021, the GSDF Northeastern Army conducted the field training exercise "Resolute Dragon 21" with the U.S. Marines. The training was the largest field training with the U.S. Marines in Japan and utilized numerous maneuver areas, such as the Ojojihara Maneuver Area and the Yausubetsu Maneuver Area. It included training for airborne maneuver operations, firing exercises using AH attack helicopters, and firepower combat training by surface-to-ship missile (SSM) and U.S. Marines High Mobility Artillery Rocket System (HIMARS) units, including anti-ship combat training, in order to enhance Japan-U.S. coordination capabilities based on GSDF cross-domain operations and U.S. Marine Expeditionary Advanced Base Operations.

b. MSDF

The MSDF has been traditionally conducting bilateral exercises with the U.S. Navy proactively, and is working to enhance the effectiveness of Japan-U.S. joint response as well as cross-domain operation capabilities through Japan-U.S. bilateral exercises with naval vessels and aircraft, anti-submarine special exercises, minesweeping special training, medical special training, and Japan-U.S. medical bilateral training.

For example, the MSDF is consistently conducting bilateral exercises with U.S. carrier strike groups, constantly enhancing the deterrence and response capabilities of the Japan-U.S. Alliance and demonstrating the two countries' unified commitment.

c. ASDF

ASDF is working to strengthen the ability of the Japan-U.S. Alliance to deter and counter threats through bilateral exercises with the U.S. Air Force such as "Red Flag-Alaska," the U.S. Air Force Exercise that the ASDF has been participating in since 1996, and the bilateral exercise "Cope North," conducted in Guam since 1999. In addition, the ASDF is working to enhance the effectiveness of Japan-U.S. joint response as well as cross-domain operation capabilities through air combat training, intercept training, defensive counter air training, tactical attack training, aerial refueling training, search and rescue training, and navigation and formation training with the U.S. Navy and Marines, as well as other Japan-U.S. bilateral exercises.

[Japan-U.S. Bilateral Exercises]

In December 2021, ASDF F-15 and F-2 fighters conducted navigation and formation training and other training with U.S. Air Force B-52 and F-35A fighters in the airspace above the Sea of Japan, enhancing various tactical skills and Japan-U.S. joint response capabilities.

In addition to these training sessions, for example, ASDF U-125A and UH-60J rescue aircraft conducted search and rescue training with U.S. Air Force CV-22 and MC-130J aircraft in the sea and airspace north of Miyakojima Island and Ishigakijima Island in November 2021. This makes it possible to save lives anywhere, including remote island areas, and in turn strengthen the ability of the Japan-U.S. Alliance to deter and counter threats.

[Red Flag-Alaska]

In June 2021, the ASDF participated in Red Flag-Alaska, a large-scale training organized by the U.S. Air Force, to improve its units' tactical skills and Japan-U.S. joint response capabilities. During the exercise, ASDF fighters and early warning and control aircraft conducted a wide range of advanced training and exercises with the U.S. Air Force in the U.S. state of Alaska, including defensive counter air training, tactical attack training, air combat training, and aerial refueling training.

[GSDF Hawk/Chu-SAM Live-Fire Training and ASDF Anti-Aircraft Unit Live Ammunition Training]

From August through November 2021, GSDF anti-aircraft artillery regiments and ASDF anti-aircraft units conducted live-fire training with surface-to-air guided missiles at McGregor Range in the U.S. state of New Mexico. The objective of the training was to train a series of action, from preparation to the actual

firing of surface-to-air guided missiles, in the U.S. to improve mission capabilities. A characteristic of the training is that it was the first time GSDF Chu-SAM units and ASDF Patriot units collaborated to conduct firing exercises against multiple targets as ASDF Patriot units and U.S. Army anti-aircraft units also conducted coordinated firing exercises.

3 Practical Multilateral Exercises with Third Party Countries

Each SDF service is actively engaged in not only bilateral training with the U.S., but also high-level multilateral exercises with the participation of third party countries. By conducting training for landing, maritime, and airborne operations with Australian and European forces, the SDF is working to enhance its tactical skills and increasing its coordination and interoperability with the forces of other countries to strengthen Japan's ability to deter and counter threats.

[ARC21 (Japan-U.S.-Australia-France Multilateral Exercise)]

In May 2021, the GSDF, MSDF, and ASDF seized the opportunity to conduct the multilateral exercise "ARC 21" with the U.S., Australian and France forces when the French training squadron "Jeanne d'Arc" was to call at Sasebo.

It was the first exercise held with the French Army in Japan. On land, the GSDF Amphibious Rapid Deployment Brigade and others conducted various training alongside the French Army and U.S. Marines at Camp Ainoura and Kirishima Maneuver Area and in the western waters and airspace of Kyushu, enhancing tactical skills for amphibious operations, such as airborne maneuvers and land-based operations, as well as strengthening cooperation with the participating countries.



Amphibious landing operations in cooperation with the forces of the U.S., Australia, the UK

At sea, MSDF surface ships including the Aegis destroyer JS "Ashigara," patrol aircraft and submarines conducted joint air defense training, anti-submarine training, and landing training together with the USS "New Orleans" amphibious transport dock and other vessels, the Australian frigate HMAS "Parramatta," the French amphibious assault ship "Tonnerre" and other ships. During the exercise, ASDF F-2s conducted training in cooperation with MSDF units.

[Talisman Sabre 21]

GSDF and MSDF participated in the multilateral exercise "Talisman Sabre 21" led by the U.S. and Australia from June to August 2021. The GSDF Amphibious Rapid Deployment Brigade conducted field training with the U.S. Marines, the Australian Army, and the British Royal Marines for the first time to improve units' tactical skills for amphibious operations and strengthen cooperation between the four countries.

The MSDF destroyer JS "Makinami" and its onboard aircraft conducted live-fire exercises, anti-submarine exercises and maritime operation exercises in the waters east of Australia with U.S. Navy amphibious ships, Royal Australian Navy amphibious assault ships, a Royal Canadian Navy frigate and a Republic of Korea Navy destroyer, enhancing various tactical skills and strengthening cooperation with the participating countries.

[MSDF Field Training Exercise]

In November 2021, the MSDF conducted the FY2021 MSDF exercise (field training exercise) in the sea and airspace surrounding Japan. The exercise is the MSDF's largest field training conducted almost every other year since the establishment of MSDF. In FY2021, about 20 vessels including the destroyer JS "Izumo" of the MSDF and about 40 aircraft participated. In addition, the exercise brought together ships from five countries, joined by approximately 10 U.S. Navy ships



Destroyer conducting live-fire training

VOICE Voice from a participant in Cope North 22

Lieutenant Colonel KANOHI Hiroaki
Executive Officer, Akita Air Rescue Squadron, Flight Group, Air Rescue Wing (Akita City, Akita Prefecture)

I, as the Commander of the Rescue Aircraft Training Unit, participated in Cope North 22, which was conducted in Guam, the United States, for a little more than a month. This training program consisted of multilateral exercise between Japan, the United States, and Australia intended to improve units' tactical skills and the interoperability between the participating countries and humanitarian assistance and disaster rescue (HA/DR) exercise. The Rescue Aircraft Training Unit participated in both exercises. The rescue aircraft that participated in the exercises included a U-125A search aircraft and a UH-60J rescue helicopter, and training for various types of rescue activities was carried out.

This year in particular, the UH-60J rescue helicopter was airlifted by a C-2 transport aircraft and participated in overseas training for the first time. This was realized as the result of great efforts. The UH-60J rescue helicopter was dismantled and airlifted by the C-2 transport aircraft. After reaching Guam, the



The U-125A search aircraft being welcomed after landing on Andersen Air Force Base.
 (Author: on the right)

rescue helicopter was reassembled by the maintenance staff under the tropical scorching sun.

In Cope North 22, participants from Japan, the United States, and Australia worked closely together from its planning phase. They incorporated past lessons and latest information on security issues into the planning and ensured that the training could be made more practically and effectively.

In addition, we needed to consider the impacts of the COVID-19 pandemic. During the HA/DR training, we got an Australian service member in the UH-60J rescue helicopter as a mock disaster victim. All the training participants made sure that they would never let anyone catch the disease.

I sincerely believe that all the participating countries banded together to make such meticulous efforts and successfully strengthened their cooperation even more. I will continue to work seriously on daily training and duties for Japan's peace and regional stability and also deepen our cooperation with various countries by making full use of the few in-person training opportunities.



"Elephant Walk" (the UH-60J rescue helicopter is at the head and the U-125A search aircraft is in the third row)

including the aircraft carrier USS "Carl Vinson," the Royal Australian Navy ship HMAS "Warramunga" and HMAS "Brisbane," the Royal Canadian Navy ship HMCS "Winnipeg," as well as the German Navy frigate "Bayern," the first to participate from a European country. Through this exercise, the MSDF worked to not only enhance its mission capabilities, but also improve joint response capabilities and interoperability with the U.S. Navy and strengthen cooperation with the Australian, Canadian, and German navies.

[Cope North 22]

The ASDF conducted Japan-U.S.-Australia trilateral training as well as humanitarian assistance and disaster relief (HA/DR) joint training as part of "Cope North 22," a multilateral training based in Guam that has been conducted since 1999 in order to contribute to maintaining and reinforcing a "Free and Open Indo-Pacific." The former involved a variety of training including defensive counter air training, tactical attack training, air-to-ground training, search and rescue training as well as maneuver deployment training under

a realistic environment. This year, US-2 rescue aircraft from the MSDF also participated. The training was intended to improve units' tactical skills, Japan-U.S. joint response capabilities, and interoperability between the participating countries.

The latter involved a multilateral exercise for HA/DR activities, and this year France participated in addition to Japan, the U.S., and Australia as the only

EU member state with a continuous military presence in the Indo-Pacific region. As part of the training, a variety of exercises were conducted, including maneuver deployment training, airborne patient transport training and search and rescue training, to improve units' capabilities for HA/DR activities and coordination procedures with participating countries.

2 Training to Reinforce Partnerships in the Indo-Pacific Region

Stabilizing the security environment surrounding Japan while reinforcing its deterrence and response capabilities is indispensable for maintaining peace in Japan. To this end, the MOD/SDF is actively promoting bilateral/multilateral training with allies and friendly nations in the broad Indo-Pacific region as part of its efforts toward the vision of a "Free and Open Indo-

Pacific." In addition to strengthening partnerships in the Indo-Pacific region, which is closely connected to our security, the MOD/SDF is working to strengthen cooperation in responding to global security challenges and destabilizing factors to which it is difficult for a country to respond individually.

Fig. IV-1-1-2

Major Training to Reinforce Partnerships in the Indo-Pacific Region



 See Fig. IV-1-1-2 (Major Training to Reinforce Partnerships in the Indo-Pacific Region)

1 The Indo-Pacific Deployment, etc.

(1) The Indo-Pacific Deployment (IPD21)

The MSDF conducted the Indo-Pacific Deployment (IPD) from August to November 2021 to contribute to the realization of a “Free and Open Indo-Pacific.” The objective was to conduct bilateral/multilateral exercises with the navies of Indo-Pacific countries as well as major European countries deploying vessels to the region in order to enhance the MSDF’s tactical skills and strengthen cooperation with the navies of

other countries, and through these trainings, contribute to the peace and stability of the region while increasing mutual understanding among the participating countries and building relationships of trust.

During the training, the destroyers JS “Kaga,” JS “Murasame,” JS “Shiranui” and their onboard aircraft called at ports in Australia, Singapore, Sri Lanka, the Republic of Palau, Vietnam, the Philippines, and the French territory New Caledonia, deepening mutual understanding with each country and conducting various bilateral/multilateral exercises at sea with the navies of these and other countries.

A total of 10 bilateral/multilateral exercises were conducted with other countries during the deployment

VOICE

Voice of the Commander of the Destroyer Unit of the Indo-Pacific Deployment 2021 (IPD21)

The Headquarters of Escort Flotilla 3 (Maizuru City, Kyoto Prefecture)

Group Commander, Rear Admiral IKEUCHI Izuru

I worked aboard the destroyers JS “Kaga,” JS “Murasame,” and JS “Shiranui” on a large body of water stretching from the western Pacific Ocean to the western coast of the Indian Ocean for about three months from August to November 2021 as the commander of the Indo-Pacific Deployment (IPD21) destroyer unit. At this time, I carried out bilateral/multilateral exercises and goodwill training over a total of 21 times with 14 countries.

The objective of IPD21 is to “carry out bilateral/multilateral exercises and training with the navies, etc. of countries in the Indo-Pacific region and Europe to improve the tactical skills of the Maritime Self-Defense Force (MSDF) and enhance cooperation with the navies, etc. of each country in the realization of a ‘Free and Open Indo-Pacific (FOIP),’ along with contributing to the

peace and stability of the region, increasing mutual understanding among the participating countries, and reinforcing relationships of trust.” IPD21 is the fifth iteration of IPD.

At IPD21, we carried out multilateral exercise with the U.S. Navy, as well as the navies of several European countries. This included a fleet whose flagship is the U.K. aircraft carrier HMS “Queen Elizabeth,” which was deployed in the Indo-pacific region for the first time. We also conducted goodwill training with Pacific Island countries, such as Palau and Vanuatu, as an IPD unit for the first time. As a result of each and every member of crew understanding the importance of this activity and coming up with various ingenious ideas to overcome adversity, we were able to accomplish our mission safely. I am proud that we were able to contribute to the peace and stability of the Indo-Pacific region through this deployment.



Training with the navies of participating countries



The author commanding the unit

period. For example, vessels from six countries, Japan, the U.S., the U.K., the Netherlands, Canada, and New Zealand, including the British Royal Navy's aircraft carrier HMS "Queen Elizabeth," jointly navigated the South China Sea, where unilateral attempts to change the status quo continue.

In addition, the MSDF made its first IPD visit to the Pacific Island countries in September, where it conducted goodwill training with the Republic of Palau and the Republic of Vanuatu. Alongside conducting search and rescue training in Palau's vicinity together with Coast Guard patrol vessels donated by the Nippon Foundation, the MSDF conducted communication training with maritime police units around Vanuatu, promoting mutual understanding with the two countries.

Furthermore, during the multilateral Maritime Partnership Exercise held between Japan, the U.S., Australia, and the U.K. in October, naval vessels and aircraft from the four countries conducted counter-attack exercises, air defense exercises and surface gunnery exercises in the Bay of Bengal to improve the tactical skills of the MSDF and strengthen cooperation between the four countries. In November, MSDF units, including a submarine, conducted anti-submarine training in the South China Sea together with a U.S. Navy destroyer and patrol aircraft, which marked the first time that MSDF submarine conducted anti-submarine training in the South China Sea.

The IPD is a symbolic initiative that demonstrates the commitment of the MOD/SDF to realizing a "Free and Open Indo-Pacific," and the MOD/SDF will continue this initiative in close cooperation with countries concerned.

(2) The Indo-Pacific and Middle East Deployment (IMED21)

From December 2021 to April 2022, the MSDF dispatched the minesweeper tender JS "Uruga" and the minesweeper JS "Hirado" to the Indo-Pacific and the Middle East, calling at ports in Brunei, Bangladesh, Sri Lanka, Bahrain, Cambodia, and Malaysia as they conducted mine warfare training and others with the navies of these and other countries. In December, they

conducted a goodwill training with Royal Brunei Navy the day before the Japan-Brunei Defense Ministerial Meeting that month, and in 2022, dubbed the "Japan-Southwest Asia Exchange Year," conducted goodwill training with Bangladesh, bilateral training with India, and goodwill training with Sri Lanka that January. In addition, from January to February, the vessels participated in the International Maritime Exercise led by the U.S. that was conducted in the sea and airspace surrounding Bahrain. On the subsequent return trip to Japan, the vessels continued to demonstrate our nation's commitment to the stability and prosperity of the region through trainings with the navies, etc. of these countries.

2 Main Bilateral/Multilateral Training Activities with Indo-Pacific Countries in FY2021

In FY2021, the MOD/SDF conducted various bilateral and multilateral training in the Indo-Pacific region. For example, in addition to participating in the Large Scale Global Exercise 2021 (LSGE21), the multilateral training led by the U.S. Indo-Pacific Command, the MOD/SDF seized the opportunity to proactively conduct bilateral trainings with the navies of the U.K., France, Germany and other European countries as they dispatched naval vessels to the Indo-Pacific region. In addition, the MOD/SDF also participated in multilateral exercises involving Japan, the U.S., India and Australia, such as Malabar 2021, to strengthen cooperation between the four countries. These bilateral/multilateral training conducted in the Indo-Pacific region are important for realizing a "Free and Open Indo-Pacific," and we will continue actively conducting them in order to strengthen our partnerships with other countries.

(1) Large-Scale Global Exercise 2021 (LSGE21)

The Large-Scale Global Exercise 2021 (LSGE21) was a large-scale training led by the U.S. Indo-Pacific Command that was held in August 2021. The first part of the exercise was joined by the MSDF destroyer JS "Makinami" alongside U.S. and Australian amphibious assault ships and other ships, and maritime operation



MOVIE: PACIFIC CROWN21

URL: <https://youtu.be/F-cR35rhn5M>

training was conducted in the sea and airspace between the Coral Sea and the waters east of the Philippines as a multilateral training between the three countries.

The latter part of the exercise was joined by the GSDF Amphibious Rapid Deployment Brigade, the MSDF destroyers JS “Ise” and JS “Asahi,” ASDF F-15 fighters, a U.S. amphibious assault ship, the British Royal Navy’s aircraft carrier HMS “Queen Elizabeth” and a Royal Netherlands Navy frigate, and air operation training was conducted in the sea and airspace south of Okinawa as a multilateral training between the four countries.

In addition to working to improve the SDF’s tactical skills and strengthen cooperation with the militaries of participating countries by conducting a variety of multilateral tactical exercises utilizing such vast sea space, the SDF has also communicated that it is collaborating with countries that share Japan’s fundamental values and strategic interests in realizing a “Free and Open Indo-Pacific.”

(2) Pacific Crown 21 (Japan-U.K.-U.S.-Netherlands-Canada Multilateral Exercise)

The MSDF and ASDF took advantage of the opportunity when the U.K. Carrier Strike Group, comprised of the U.K., U.S. and Dutch navies and led by the British aircraft carrier HMS “Queen Elizabeth,” made a port call in Japan and conducted a series of multilateral training exercises entitled “Pacific Crown 21” from August to September 2021 over a wide ranging area, from the waters south of Kyushu to the eastern waters of the Kanto region. The MSDF sent destroyers, including JS “Izumo,” submarines and P-1 patrol aircraft, while the ASDF sent F-35As and other fighters as well as E-767 early warning and control aircraft to participate. Together with British Royal Navy vessels such as the aircraft carrier HMS “Queen Elizabeth,” British Royal Air Force F-35B fighters, a U.S. Navy destroyer, U.S. Marine F-35B fighters, and vessels from other participating countries, they conducted counter-attack exercises, air defense exercises and anti-submarine exercises to enhance various tactical skills and strengthen cooperation with the navies and air forces of participating countries.

In addition to this exercise, the MSDF conducted 10 multilateral exercises with the British aircraft carrier HMS “Queen Elizabeth,” and ASDF also conducted the first multilateral exercise between Japan, the U.K.

and the U.S. using fifth-generation fighters. This series of exercises has embodied the fact that defense cooperation between the U.K. and Japan has entered into a new phase, and demonstrated that the U.K.’s involvement is firm and irreversible and that defense cooperation between the two countries contributes not only to the security of our nation but also to ensuring peace and stability in the Indo-Pacific region and for the international community.

(3) Japan-U.S.-U.K.-Netherlands-Canada-New Zealand Multilateral Exercise with Three U.S. and U.K. Aircraft Carriers

In October 2021, the MSDF conducted a multilateral exercise in the sea and airspace southwest of Okinawa with the U.S. Navy, the British Royal Navy, the Royal Netherlands Navy, the Royal Canadian Navy and the Royal New Zealand Navy.

The exercise was conducted by a total of 17 naval vessels alongside multiple aircraft, with the participation of the U.S. aircraft carriers USS “Ronald Reagan” and USS “Carl Vinson” as well as the British aircraft carrier HMS “Queen Elizabeth.” Various large-scale exercises were conducted, including counter-attack exercises, air defense exercises, anti-submarine warfare exercises and tactical maneuvering exercises. It was the first time the MSDF has trained with three aircraft carriers since 2017, a span of about four years, and the MSDF took advantage of the opportunity to enhance various tactical skills and strengthen cooperation with the participating countries. The fact that a large number of naval vessels including three aircraft carriers participated in the multilateral exercise is symbolic of the collaboration between these countries in realizing a “Free and Open Indo-Pacific.”

(4) La Pérouse 21 (Japan-France-U.S.-Australia-India Multilateral Exercise)

In April, the MSDF participated in Japan-France-U.S.-Australia-India multilateral exercise “La Pérouse 21.” La Perouse is a multilateral exercise for navies organized by France and held for the first time in 2019 between Japan, France, the U.S. and Australia. La Perouse 21 marked the first time India has participated. The MSDF, together with French, U.S., Australian and Indian naval vessels, conducted training in the Bay of Bengal that are key in executing maritime operations. The Bay of Bengal is one of the main sea areas of the Indo-Pacific,

and the training served as a manifestation of Japan's will to promote the realization of a "Free and Open Indo-Pacific" while demonstrating both at home and abroad mutual cooperation and unity amongst Japan, France, the U.S., Australia, and India, five countries that share fundamental values such as democracy and the rule of law.

(5) Malabar 2021 (Japan-U.S.-India-Australia Multilateral Exercise)

The MSDF conducted the Japan-U.S.-India-Australia Multilateral Exercise "Malabar 2021" from August to October, 2021 to strengthen cooperation toward realizing a "Free and Open Indo-Pacific" (FOIP). The exercise was conducted in phases in the waters surrounding Guam, the Western Pacific (the Philippine Sea) and the Bay of Bengal, covering a wide area, with the participation of MSDF destroyers, patrol aircraft, submarines and the Special Boarding Unit; U.S. Navy vessels, aircraft and an aircraft carrier; Indian Navy vessels, marine commandos (MARCOS) and other units; and Royal Australian Navy vessels. They conducted anti-submarine exercises, air defense exercises, surface gunnery exercises, offshore supply exercises and other exercises.

Through this exercise, the four countries, sharing basic values such as democracy and the rule of law, embodied their unified intent to realize a "Free and Open Indo-Pacific" and demonstrated both at home and abroad their cooperation and unity.

(6) Japan-Germany Bilateral Exercises

In FY2021, the MSDF conducted six bilateral exercises with the German Navy frigate "Bayern" which was on deployment to the Indo-Pacific region. In particular, the MSDF took advantage of the opportunity to conduct various tactical exercises in November as it was the first time a German naval vessel had made a port call in Japan in 20 years, enhancing the MSDF's tactical skills and strengthening cooperation with the German Navy.

(7) KAMANDAG 21 (Exercise with the Philippines)

GSDF participated in the U.S.-Philippine-hosted joint

exercise "KAMANDAG 21" from September to October 2021. The GSDF Amphibious Rapid Deployment Brigade conducted training with the Philippine Marine Corps in which they carried out disaster relief activities, medical evacuations and other activities utilizing the JSDF Life Saving System. Through this exercise, the SDF worked to improve its tactical skills in humanitarian assistance and disaster relief, and cooperation between the SDF and the Philippine military was strengthened.

(8) Japan-U.S.-Australia Trilateral Humanitarian Assistance/Disaster Relief Exercise in the Federated States of Micronesia, etc. (Christmas Drop 21)

In December 2021, the ASDF participated in the humanitarian assistance/disaster relief (HA/DR) exercise "Christmas Drop 21" held by the U.S. Air Force in the Federated States of Micronesia and other locations with the aim of improving its HA/DR capabilities, etc. The ASDF sent a C-130H transport aircraft to participate, which conducted an airdrop training based out of Andersen Air Force Base, dropping daily necessities and other donated goods collected by the U.S. military into the sea in and around the Republic of Palau and Federated States of Micronesia to improve the ASDF's HA/DR capabilities and strengthen cooperation with the participating countries.

(9) Bilateral Training on Humanitarian Assistance and Disaster Relief (HA/DR) with the Philippine Air Force

In an aim to enhance its HA/DR and other capabilities, the ASDF conducted a bilateral training with the Philippine Air Force in July 2021, which served to improve its HA/DR capabilities and strengthen cooperation with the Philippine Air Force. The training was conducted at Clark Air Base in the Philippines, with the ASDF sending a C-130H transport aircraft to participate. This was the first bilateral training between the ASDF and the Philippine Air Force, and such trainings will continue to be conducted for the stability of the region.

3 Other Training Activities

The SDF conducts training on a daily basis so that it is able to not only defend our nation, but also respond to natural disasters and accomplish an array of other duties.

1 Disaster Prevention Drills

In order to respond to large-scale and various other disasters in a speedy and appropriate manner, the SDF carries out various disaster prevention drills, and also actively participates in disaster prevention drills organized by the Japanese Government or local governments and is seeking to ensure cooperation with various ministries and agencies, and local governments.

a. Joint Exercise for Rescue (JXR)

The SDF conducts disaster drills concerning its command and staff activities, and coordination between its major units and with organizations related to disaster prevention in the event of a large-scale earthquake to maintain and enhance the SDF's earthquake response capability. In May 2021, the SDF carried out training assuming the occurrence of an earthquake directly hitting the Tokyo area during the Tokyo 2020 Olympic and Paralympic Games, taking all possible measures to ensure the success of the Games.

b. Tomodachi Rescue Exercise (TREX) Joint Disaster Response Exercise with U.S. Forces

In February 2022, joint exercises were held with U.S. Forces stationed in Japan in the scenario of the Nankai Trench earthquake. The purpose of the exercise was to maintain and enhance earthquake disaster relief capabilities in collaboration between the SDF and U.S. forces.

c. Remote Island Disaster Relief Exercise (RIDEX)

In November 2021, the SDF conducted a field training

exercise to deal with sudden large-scale disasters on a remote island to maintain and enhance the SDF's ability to respond to disasters on remote islands as well as strengthen collaboration with the U.S. military and relevant disaster prevention organizations.

d. Drill for medical treatment activities following a large-scale earthquake

In October 2021, the SDF participated in a drill organized by the Cabinet Office for medical treatment activities following a large-scale earthquake. In this drill, the SDF practiced various activities for disaster relief and coordination with organizations related to disaster prevention to maintain and enhance the SDF's disaster response capability.

2 Training on the Rescue of Japanese Nationals Overseas, etc.

It is important that the SDF maintains its ability to promptly protect Japanese nationals overseas, etc. during emergency situations overseas from peacetime, and as such the SDF has been conducting training to do so. For example, from November to December 2020, for the purposes of improving joint operation capabilities as to the rescue of Japanese nationals overseas, etc. and strengthening cooperation with the SDF and the relevant organizations, in coordination and collaboration with the relevant ministries and agencies, field training was conducted by about 300 people from the Joint Staff, the Ground Component Command, the GSDF Eastern Army, Military Police units, the Air Defense Command, the Air Support Command, the Air Training Command, the Air Materiel Command, etc.

Section 2

Establishing the Respective Training Environments

1 Training Environment

Given the increasingly severe security situation surrounding Japan, it is important to work to establish units and other organizations and enhance the quality of the training so that the SDF can exert its capabilities to the fullest.

Because of this, SDF training has been planned and conducted under conditions that are as close as possible to actual combat situations, yet it is necessary to further enhance the training environment in order to maintain and enhance the readiness of the SDF. It is against this background that the SDF is promoting initiatives to enhance the training infrastructure in Japan and abroad to conduct efficient and effective training and exercises.

As part of these initiatives, the MOD is working to expand the establishment and utilization of domestic maneuver areas in Hokkaido and elsewhere based on the National Defense Program Guidelines (NDPG). The GSDF Support Group for Training Assessment conducted regiment-level field counter-attack exercises at Kamifurano Maneuver Area (Kamifurano Town, Sorachi County, Hokkaido, etc.) in June 2021, and at the Yausubetsu Maneuver Area (Betsukai Town, Notsuke County, Hokkaido, etc.) that July and August.

Furthermore, the SDF is also facilitating expanded joint/shared use of U.S. Forces facilities and areas located in Japan by the SDF while accounting for relations with local communities.

Furthermore, the SDF will facilitate the use of places other than SDF facilities or U.S. Forces facilities and areas, and the utilization of excellent training environments overseas, such as the U.S. and Australia, and introduce simulators actively.

Elsewhere, facilities are in the process of being established on Mageshima, Kagoshima Prefecture, where the Ground, Maritime, and Air Self-Defense Forces will be able to conduct training and other activities.

1 GSDF

Maneuver areas and ranges are unevenly located and do not have sufficient space. Thus, the GSDF is unable to

conduct exercises with large units or artillery training with extended-range cannons for example. These constraints tend to grow as equipment is modernized. There are also constraints imposed by the urbanization of the areas surrounding maneuver areas and ranges.

Because of this, it conducts live-fire training by surface-to-air guided units and surface-to-ship guided missile units and the like, which cannot be conducted in Japan, in the United States.

In addition, it conducts field training exercises at the division and army levels making maximal use of the limited domestic maneuver areas and the like, and also conducts more practical training outside of SDF facilities and areas while obtaining the understanding and cooperation of local communities.

2 MSDF

The timing and location for using sea areas for training are limited by such factors as weather, ocean conditions, marine traffic, and fisheries. Because of this, for example, training that must be conducted in relatively shallow sea areas, such as minesweeping training and submarine rescue training, is being conducted in places such as parts of Mutsu Bay and the Sea of Suonada.

The MSDF also strives to conduct training systematically and efficiently so that a large number of units will be able to produce training results in a short amount of time.

3 ASDF

Currently, since much of training airspace near Japan is not broad enough, the performance and features of the aircraft cannot be fully exerted in some training. Furthermore, in operating airports, it is necessary to take great care regarding aircraft noise in conducting early morning and nighttime flight training.

Because of this, the ASDF strives to ensure that its training is systematic and efficient. In the Iwo-To training airspace, for example, aircraft are dispatched successively from the units to conduct training

intensively, focusing on training that cannot be conducted sufficiently on the mainland and other exercises.

In addition, it conducts bombing and gunnery training with live ammunition by such means as joint use of USFJ bombing and gunnery areas.

Other efforts are being made to utilize the overseas training environment such as the live-fire training for Patriot missiles by anti-aircraft units in the United States.

 See Reference 63 (List of Maneuver Areas)

2 Initiatives for Safety Management, etc.

The Ministry of Defense (MOD)/SDF constantly strive as one for safety management, such as by implementing the highest level of safety measures and precautions during routine training.

In order to avoid harm to citizens' lives and property as well as the loss of life of SDF personnel, the MOD/SDF as a whole is committed to working to prevent training accidents by all means necessary.

Section 1 Reinforcing Human Resource Base

The National Defense Program Guidelines for FY2019 and beyond (NDPG) specifies that the core element of defense capability is Self-Defense Forces (SDF) personnel, and that securing human resources for SDF personnel and improving their ability and morale are essential to strengthening defense capability. This has become an imminent challenge in the face of the

shrinking and aging population with declining birth rates. Also, in light of the sustainability and resilience of defense capability, the SDF needs to work even further to reinforce the human resource base.

SDF's measures to reinforce the human resource base including those taken so far are explained below.

1 Recruitment and Employment

1 Recruitment

It is vital to secure highly qualified personnel for the Ministry of Defense (MOD)/SDF to carry out various missions appropriately. Expectations from the public for the MOD/SDF have continued to rise. In Japan, however, due to the recent economic and employment upturn, as well as the advancement of declining birthrate and popularization of higher education, the environment surrounding the employment of uniformed SDF personnel is severe. In such a situation, it is necessary for the MOD/SDF to recruit qualified human resources with a strong desire to join the SDF, by sufficiently explaining to them the missions, roles, duties, welfare programs, and privileges of the SDF.



Online briefing session for people qualified to be general officer candidates

For this reason, the MOD/SDF maintains Provincial Cooperation Offices in 50 locations throughout Japan to recruit and employ SDF personnel, attentively and perseveringly obtaining cooperation from local governments, schools, recruitment counselors, and others in a severe recruitment environment. Moreover, local governments will carry out some of the administrative activities regarding the recruitment of uniformed SDF personnel and candidates for uniformed SDF personnel, including announcing the recruitment period and promoting the SDF as a workplace, with the MOD bearing the requisite cost. At the same time, the MOD is strengthening collaboration with local governments to ensure necessary cooperation including information provision on recruitment targets, which is indispensable for smooth administrative activities regarding the recruitment.

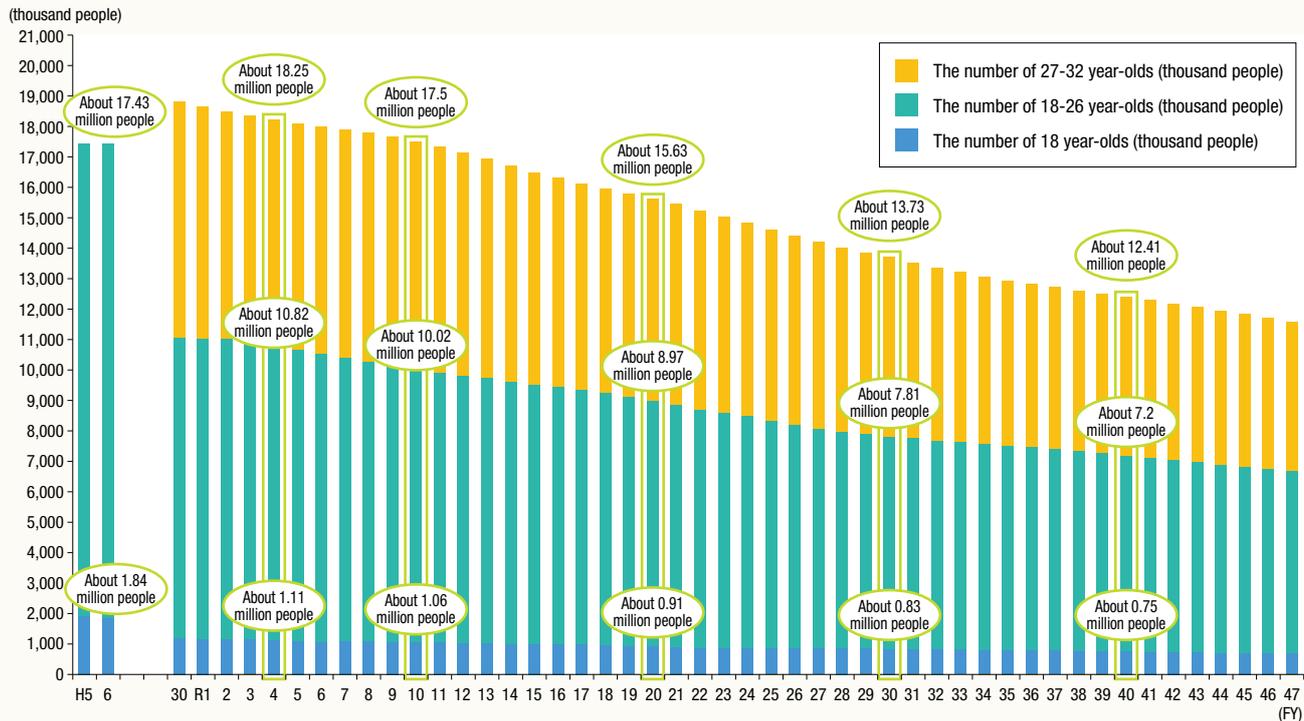
2 Employment

(1) Uniformed SDF Personnel

Based on a voluntary system that respects individuals' free will, uniformed SDF personnel are recruited under various categories. The upper age limit of general candidate for enlistment (Upper) and candidates for uniformed SDF personnel was raised from "under 27" to "under 33" in 2018 in order to secure diverse human resources from a broader range, including people with

Fig. IV-2-1-1

Changes in the Number of People Eligible for Recruitment



Material sources: The numbers for FY1993 and FY1994 are based on "Population Estimates of Japan 1920 - 2000" and "Current Population Estimates," Statistics Bureau, Ministry of Internal Affairs and Communications.
Data from FY2018 onward are based on "Population Projection for Japan" (medium estimates in April 2017), National Institute of Population and Social Security Research.

work experience in private companies.

Moreover, a review of the examination for candidates for uniformed SDF personnel was conducted in 2020 in order to ensure improvement of the quality of the uniformed SDF personnel in fixed-term system (candidate for uniformed SDF personnel) while securing human resources with diverse backgrounds and capabilities.



New members of the ASDF attending induction ceremony (April 2021)



Fig. IV-2-1-1 (Changes in the Number of People Eligible for Recruitment)

Fig. IV-2-1-2 (Overview of Appointment System for SDF Personnel)

Personnel management of uniformed SDF personnel differs from that of general civilian government employees,¹ due to the uniqueness of their duties and the need to maintain the SDF's strength. With consideration given to the knowledge, experience, physical strength and other factors necessary for the duties of the respective ranks, the SDF has "Early Retirement System" where the majority of personnel retire in their mid-50s and "Fixed Term System" where one term is two or three years.

After employment, uniformed SDF personnel are assigned their branch of service and duties at units all around Japan, in accordance with their choice or aptitude, following basic education and training at respective training units or schools of respective SDF services.

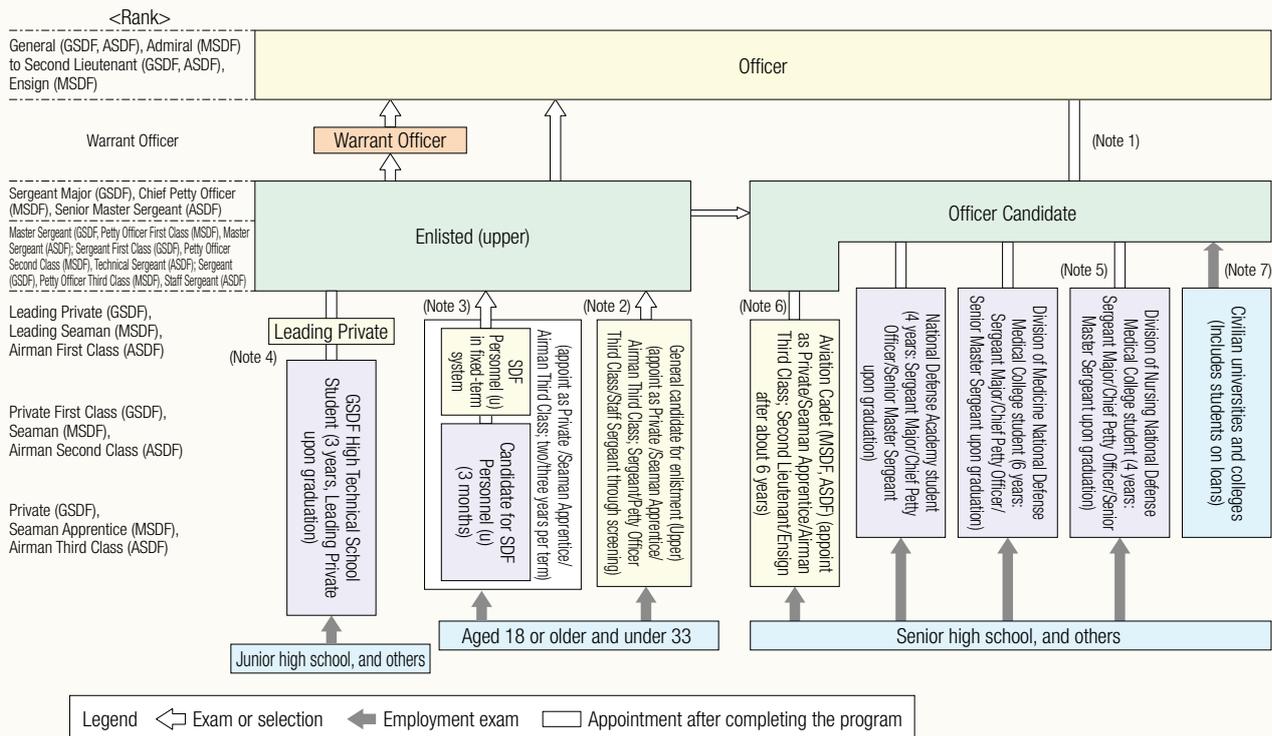


Reference 56 (Authorized and Actual Strength of Uniformed SDF Personnel and Changes in Them)

Reference 57 (Status of Application and Recruitment of Uniformed SDF Personnel (FY2021))

¹ SDF personnel are designated as special national government employees under Article 2 of the National Civil Service Law.

Fig. IV-2-1-2 Overview of Appointment System for SDF Personnel



Notes: 1. Staff candidates for the medicine, dentistry, and pharmacy faculties will be promoted to the position of First Lieutenant if they pass the national examinations in medicine and complete the prescribed education and training.
 2. General candidate for enlistment (upper) refers to a candidate who has been enlisted with the premise that he/she will be promoted to a fixed-term position of "Enlisted (upper)." Until FY2006, there were two programs consisting of "Student candidates for enlistment (upper)" and "Enlisted (upper) candidates." However, these two programs were reorganized and combined, and since FY2007, candidates have been appointed as "General candidates for enlistment (upper)."
 3. As for the candidate for uniformed SDF personnel, in order to enhance the initial education of SDF personnel in fixed-term service, in July 2010, it was decided that their status during the first three months of their enlistment would be as non-SDF personnel, and they would engage exclusively in fundamental education and training as non-regular Ministry of Defense personnel.
 4. GSDF High Technical School trains people to be SDF personnel who will be capable not only of operating and making full use of equipment in the GSDFF but also of conducting missions in the international community. Starting from FY2010 appointments, the status of the school's students was changed from SDF officer to "students," which is a new non-regular status. New students receive a high school diploma at the conclusion of a student course (three years) through distance learning. From the FY2011 appointments, a new recommendation system was introduced in which those who are considered appropriate to be a GSDF High Technical School student are selected from among the candidates based on the recommendation of the principal of their junior high school etc., in addition to the conventional general examination.
 5. A three-year program ended in FY2013. A new four-year program was established at the Division of Nursing, National Defense Medical College, in FY2014.
 6. For Aviation Cadets, the Maritime Self-Defense Force selects from persons 18 or above and under 23 in age and the Air Defense Force 18 or above and under 21 in age.
 7. For students on loans, the SDF lends school expenses (54,000 yen per month) to students who major in medicine, dentistry, or science and engineering at a university or a graduate school (excluding professional graduate schools) and have an intention to continue serving as SDF personnel after graduation (completion) by taking advantage of academic knowledge in their specialized fields.

(2) SDF Reserve Personnel, SDF Ready Reserve Personnel, and Candidates for SDF Reserve Personnel

It is essential to secure the required number of uniformed SDF personnel promptly depending on situational changes in the event of a crisis. To secure the required number promptly and systematically, the MOD maintains the following three systems: the SDF Reserve Personnel system, the SDF Ready Reserve Personnel system, and the Candidates for SDF Reserve Personnel system.²

See Fig. IV-2-1-3 (Overview of Systems Related to SDF Reserve Personnel)

SDF Reserve Personnel become uniformed SDF

personnel upon the issuance of a defense call-up order or other orders, and carry out logistical support and base guard duties. SDF Ready Reserve Personnel become uniformed SDF personnel and are assigned to carry out their mission together with incumbent uniformed SDF personnel as part of frontline units following the issuance of a defense call-up order or other orders. Candidates for SDF Reserve Personnel, some of whom are recruited among those with no prior experience as uniformed SDF personnel, are appointed as SDF Reserve Personnel after completing the necessary education and training.

As SDF Reserve Personnel and others work in their civilian jobs under normal circumstances, they

² Many other countries also have reserve personnel systems.

Fig. IV-2-1-3 Overview of Systems Related to SDF Reserve Personnel

	SDF Reserve Personnel	SDF Ready Reserve Personnel	Candidate for SDF Reserve Personnel
Basic concept	<ul style="list-style-type: none"> Upon the issuance of a defense call-up order or other orders, serve as SDF Personnel 	<ul style="list-style-type: none"> Serve as SDF Personnel in a pre-designated GSDF unit, as part of the basic framework of defense capability 	<ul style="list-style-type: none"> Appointed as SDF Reserve Personnel in the GSDF or MSDF upon completion of education and training
Eligibility	<ul style="list-style-type: none"> Former SDF Personnel, former SDF Ready Reserve Personnel, former SDF Reserve Personnel 	<ul style="list-style-type: none"> Former SDF Personnel, former SDF Reserve Personnel 	(Common to General and Technical Employment Categories) <ul style="list-style-type: none"> Those with no experience as SDF personnel (including those with less than a year of SDF experience)
Age	<ul style="list-style-type: none"> Leading privates and lower SDF Reserve Personnel: 18 to under 55 years old Officer, Warrant Officer, Enlisted (Upper): Under the age of two years added to respective retirement age 	<ul style="list-style-type: none"> Leading privates and lower SDF Ready Reserve Personnel: 18 to under 50 years old Officer, Warrant Officer, Enlisted (Upper): Under the age of three years subtracted from respective retirement age 	<ul style="list-style-type: none"> General: 18 to under 34 years old; Technical: between the age of 18 and under 53 or 55 depending on technical skills possessed
Employment	<ul style="list-style-type: none"> Employed by screening, based on application Candidate for SDF Reserve Personnel is appointed as SDF Reserve Personnel upon completion of education and training 	<ul style="list-style-type: none"> Employed by screening, based on application 	<ul style="list-style-type: none"> General: Employed by examination, based on application Technical: Employed by screening, based on application
Rank designation	<ul style="list-style-type: none"> Former SDF Personnel: Designated rank at the point of retirement in principle Former SDF Reserve Personnel and Former SDF Ready Reserve Personnel: Designated rank at the point of retirement in principle Candidate for SDF Reserve Personnel <ul style="list-style-type: none"> General: Private Technical: Designated according to skills and length of experience 	<ul style="list-style-type: none"> Former SDF Personnel: Designated rank at the point of retirement in principle Former SDF Reserve Personnel: Designated rank at the point of retirement in principle 	<ul style="list-style-type: none"> Not designated
Term of service	<ul style="list-style-type: none"> Three Years/One term 	<ul style="list-style-type: none"> Three Years/One term 	<ul style="list-style-type: none"> General: Within three years Technical: Within two years
Education/ Training	<ul style="list-style-type: none"> Although the Self-Defense Forces Law designates a maximum of 20 days per year, actual implementation is 5 days per year as a standard 	<ul style="list-style-type: none"> 30 days per year 	<ul style="list-style-type: none"> General: 50 days within three years (equivalent to Candidate SDF personnel (private level) course) Technical: 10 days within two years (training to serve as SDF Personnel by utilizing their special skills)
Promotion	<ul style="list-style-type: none"> Promotion is determined by screening the service record of personnel who have fulfilled the service term (actual serving days) 	<ul style="list-style-type: none"> Promotion is determined by screening the service record of personnel who have fulfilled the service term (actual serving days) 	<ul style="list-style-type: none"> Since there is no designated rank, there is no promotion
Benefits, allowances, and other terms	<ul style="list-style-type: none"> Training Call-up Allowance: ¥8,100/day* SDF Reserve Allowance: ¥4,000/month <p>* The Training Call-up Allowance of ¥8,300/day supports the training of SDF Reserve Personnel who are former candidates for SDF Reserve Personnel in order for them to become SDF Ready Reserve Personnel.</p>	<ul style="list-style-type: none"> Training Call-up Allowance: ¥10,400-14,200/day SDF Ready Reserve Allowance: ¥16,000/month Continuous Service Incentive Allowance: ¥120,000/one term 	<ul style="list-style-type: none"> Education and Training Call-up Allowance: ¥8,500/day* <p>* ¥7,900/day will be provided to individuals who passed the recruitment test before FY2019.</p>
Special subsidy for companies employing SDF Ready Reserve Personnel	<ul style="list-style-type: none"> Special subsidy for companies cooperating with training of SDF Ready Reserve Personnel: ¥560,000/personnel Provided when an SDF Reserve Personnel who is a former candidate for SDF Reserve Personnel is appointed as an SDF Ready Reserve Personnel. Special subsidy to secure understanding and cooperation from employers regarding the duties of SDF Reserve Personnel: ¥34,000/day 	<ul style="list-style-type: none"> Special subsidy for companies employing SDF Ready Reserve Personnel: ¥42,500/month 	—
Call-up duty and other duties	<ul style="list-style-type: none"> Defense call-up, civil protection call-up, disaster call-up, training call-up 	<ul style="list-style-type: none"> Defense call-up, civil protection call-up, security call-up, disaster callup, training call-up 	<ul style="list-style-type: none"> Education and training call-up

need to adjust their work schedule to participate in periodic training exercises. Therefore, understanding and cooperation from the companies that employ these personnel are essential.

For this purpose, the MOD provides a special subsidy to the companies that employ SDF Ready Reserve Personnel and take necessary measures to allow such employees to attend training sessions for 30 days a year, by taking into consideration the burden on such

companies.

Also, in 2017, the MOD established a framework that allows the MOD/SDF to provide such information as the scheduled term of a training call-up and scheduled term during which SDF Reserve Personnel/SDF Ready Reserve Personnel are called up to perform actual operations and are appointed as uniformed SDF personnel, when requested by their employers. In 2018, the MOD established a system to provide a subsidy

which aims to contribute to securing understanding and cooperation from the employers regarding the duties of SDF Reserve Personnel. Under the system, the employers are provided with a subsidy if (1) SDF Reserve Personnel or SDF Ready Reserve Personnel respond to a defense operation call-up order, civil protection dispatch call-up order, or disaster relief call-up order, etc. or (2) if they have no choice but to leave their regular occupations due to injuries during their duties, etc.

In addition, a special subsidy to the companies that cooperate with training of SDF Ready Reserve Personnel was established in 2020. The subsidy is paid to companies that employ people who, after being a Candidate for SDF Reserve Personnel with no prior experience as uniformed SDF personnel, are appointed as SDF Ready Reserve Personnel after completing the necessary education and training, and that take necessary measures to allow such employees to attend training sessions.

SDF Ready Reserve Personnel were called up at the time of the July 2018 Heavy Rain³ and the 2018 Hokkaido Eastern Iburi Earthquake.⁴ In 2019, during the East Japan Typhoon (Typhoon Hagibis)⁵ and the 2020 July Heavy Rain,⁶ both SDF Ready Reserve Personnel and SDF Reserve Personnel were called up. In those cases, they carried out activities including transportation of goods and livelihood support to the affected people. Moreover, in 2020, in a disaster relief mission to prevent infection of the novel coronavirus disease (COVID19) from spreading, SDF Reserve Personnel with medical qualification were called up and carried out their missions, including medical support.⁷

The MOD has been implementing various measures to increase and enhance SDF Reserve Personnel and others because SDF Reserve Personnel are anticipated to be called up more often in response to earthquake

and other disasters. Specifically, recruitment and appointment were expanded in 2018 to secure a wide variety of human resources from a broader range. The upper age limit for recruitment of leading privates and lower SDF Reserve Personnel was raised from “under 37” to “under 55” and the upper age limit for their continued appointment from “under 61” to “under 62.” An upper age limit is not set for persons with a license for a medical practitioner. Their continued appointment is approved when it is confirmed that they properly maintain their medical techniques and that there is no problem with their duties as SDF Reserve Personnel.

The upper age limit for recruitment of leading privates and lower SDF Ready Reserve Personnel was raised from “under 32” to “under 50.” In 2019 a new system was established to appoint SDF Reserve Personnel without experience in the SDF as SDF Ready Reserve Personnel after completing the necessary education and training.

Also, the MOD promotes the use of SDF Reserve Personnel in a wide range of fields, such as the appointment of retired SDF pilots, who were reemployed in the private sector through the re-employment system, as SDF Reserve Personnel.⁸

(3) Administrative Officials, Technical and Engineering Officials, Instructors, and Other Civilian Personnel

There are approximately 21,000 civilian personnel - administrative officials, technical and engineering officials, instructors, and others - in addition to uniformed SDF personnel in the MOD/SDF.⁹ Civilian personnel are mainly recruited from those who have passed the Recruitment Examination for Comprehensive and General Service National Public Employees conducted by the National Personnel Authority (NPA), and those who have passed the Recruitment Examination for

3 In response to the July 2018 Heavy Rain, approximately 310 SDF Ready Reserve Personnel were called up. From July 12 to 30, they engaged in activities including removal of disaster waste and livelihood support to the affected people.

4 In response to the 2018 Hokkaido Eastern Iburi Earthquake, approximately 250 SDF Ready Reserve Personnel were called up. From September 8 to 23, they engaged in activities including livelihood support to the affected people.

5 In response to the 2019 East Japan Typhoon (Typhoon Hagibis), approximately 410 SDF Ready Reserve Personnel and SDF Reserve Personnel were called up. From October 15 to November 8, they engaged in activities including removal of disaster waste and livelihood support to the affected people.

6 In response to the 2020 July Heavy Rain, approximately 350 SDF Ready Reserve Personnel and SDF Reserve Personnel qualified as nurses were called up. From July 7 to 19, they engaged in activities including removal of disaster waste and medical support.

7 In a disaster relief mission against COVID-19 in 2020, 10 SDF Reserve Personnel with a medical qualification were called up and engaged in activities including medical support from February 18 to March 12.

8 The reemployment system for SDF pilots aims to prevent the outflow of active young SDF pilots to civil aviation companies in an unregulated manner. This system is also designed to utilize SDF pilots over a certain age as pilots of commercial airlines, and is also significant from the perspective of the development of the airline industry in Japan as a whole.

9 Among the employees of the MOD, special national government employees are called “SDF personnel,” including administrative officials, technical and engineering officials, instructors, and others, in addition to uniformed SDF personnel.

Ministry of Defense Specialists conducted by the MOD. After participating in the common training course, civilian personnel recruited in this process work in a wide range of fields.

Administrative officials are engaged in defense-related policy planning in the Internal Bureaus of the MOD and at the Acquisition, Technology and Logistics Agency (ATLA); analysis and evaluation at the Defense Intelligence Headquarters; and administrative works at the SDF bases, the Regional Defense Bureaus, and other locations throughout the country.

Technical and engineering officials are engaged in policy planning related to defense facilities (headquarters, runways, magazines, etc.) and physical infrastructure such as defense equipment at the Internal Bureaus of the MOD and the ATLA; analysis and evaluation at the Defense Intelligence Headquarters; and constructing various defense facilities, carrying out research and development (R&D), efficient procurement, maintenance and improvement of a range of equipment,

providing mental health care for SDF personnel, and other duties at the SDF bases, the Regional Defense Bureaus, and other locations nationwide.

Instructors conduct advanced research on defense and provide high-quality education to SDF personnel at the National Institute for Defense Studies, the National Defense Academy, the National Defense Medical College, and other organizations.

In response to the “Directive for Organization and Allocation of Personnel Expense in FY2022 to Proceed with the Core Issue of the Cabinet Office” (decision by the Prime Minister on July 7, 2021), which listed “development of security arrangement while further improving the efficiency of defense force development” as one of the priority areas, the MOD has increased the number of defense officials in FY2022 in preparation for the implementation of NDPG and The Medium Term Defense Program (MTDP).

 See Reference 58 (Breakdown of Ministry of Defense Personnel, etc.)

VOICE

Voices from an SDF ready reserve personnel and the employer of an SDF reserve personnel

**Ready Reserve Leading Private, 2nd Company,
31st Infantry Regiment****ABIKO Shuhei**

After retiring from the Self-Defense Forces (the SDF), I chased a dream, thinking “I hate being unable to do anything in times of trouble.” I applied to become an SDF reserve personnel and actually became an SDF ready reserve personnel two years later.

Because I am now engaging in jobs with definite deadlines, understanding from my boss and colleagues are essential for me to participate in 30 days of training in a year. I am greatly grateful to all the people in my office for their coordination which is making my participation in training possible.

Through my participation in training as an SDF ready reserve personnel, I have been greatly inspired to see seniors carve out time for physical training despite being busy in preparation for being drafted and dispatched for disaster rescue and other operations. In addition, I am also grateful for having a support system for newly recruited SDF ready reserve personnel and for having been able to receive training without worries starting from

the first year, although there have been many things I don't know.

I will continue to work hard to fulfill my duties as an SDF ready reserve personnel, developing my physical strength and skills and gaining understanding from people in my office, with the aim of participating in 30 days of training in a year.



The author participating in the shooting training

**KIKUCHI Hideki,
President and CEO of SANKIKOUGYOU Co., Ltd.**

Our company is headquartered in Nishi-ku, Sapporo City, Hokkaido and engages in civil engineering work as well as snow removal operations in winter. Since our foundation, we have prioritized customer trust and satisfaction and have consistently been conducting business operations with a motto of “wholehearted construction.”

Currently, we have four SDF ready reserve personnel as civil engineering workers. I also have several employees who were previously SDF personnel, who work hard as civil engineering workers, heavy machine tool operators, and field agents. Civil engineering work involves many dangerous operations and situations. But they work hard making full use of physical strength, mental strength, and experience they developed through training. I don't think that it is easy to work while doing training in preparation for an emergency. I am very proud of them

for balancing corporate tasks and training.

Our company will continue to contribute to society through the employment of SDF ready reserve personnel.



A recent photo of the author at SANKIKOUGYOU Co., Ltd.

* Regarding the employment of both persons, there are no relationships.

VOICE Contributions of Defense Technical Officials

The Okinawa Defense Bureau (Kadena Town, Nakagami County)

TSUTSUI Ryo, Staff, Civil Engineering Division, Procurement Department

I joined the Ministry of Defense (the MOD) in 2016 as a defense technical official and now perform construction-related duties for facilities of the Self-Defense Forces (the SDF) and the U.S. Forces stationed in Japan. The reason why I wished to join the MOD was that I was attracted to the wide range of maintenance and repair of facilities, such as special facilities, including fuel facilities and hangar, and SDF facilities that are used as bases in case of disaster. Currently, I supervise civil engineering operations for projects on the realignment of the U.S. Forces stationed in Japan at the Okinawa Defense Bureau. I find it particularly rewarding to coordinate with the U.S. Forces regarding the start of construction work, to solve problems and to complete the construction safely. I will continue to work hard to contribute to

Japan's security by maintaining and repairing facilities for the users and local residents.



Ship and Ordnance Section, Systems Planning Department, Maritime Staff Office

NARITO Akizumi, an official of the Training Equipment Section

The reason why I wished to join the Ministry of Defense (the MOD) was that I was attracted by work related to the development, maintenance, and repair of equipment unique to the MOD, such as destroyers and aircraft.

Since joining the ministry, I have engaged in building and repair of naval vessels equipment, drawing up specifications for the development and repair of artillery and missile launchers and guided weaponry, budgetary estimation and procurement, and coordination for repair. The maintenance and repair of equipment is essential to the activity of the Self-Defense Forces (the SDF) and is directly linked to Japan's security. I find the work very rewarding.

I will contribute to Japan's security through further development, maintenance, and repair of equipment.



2 Daily Education

1 Education of Uniformed SDF Personnel

Enhancing the ability of the individual uniformed SDF personnel who comprise SDF units is essential for the execution of the units' duties. For this purpose, the respective SDF training units and schools provide opportunities for phased and systematic education

according to rank and duties to nurture necessary qualities and instill knowledge and skills.

A considerable extent of human, temporal, and economic efforts such as securing instructors with special skills, and improving equipment and educational facilities, are necessary for providing education. In the event that personnel need to further improve their

VOICE Voices of SDF Personnel Studying at Graduate Schools at Home or Abroad

6th Squadron, Flight Group, 8th Air Wing (Studying at an Italian school)

First Lieutenant HIGASHIBARA Go

I have been studying English since January 2022 in preparation for flight training in Italy. My aim is to undertake flight training at the International Flight Training School (IFTS) operated by the Italian Air Force. This is the first time that a member of Air Self-Defense Force (ASDF) personnel will participate. At Galatina Air Base, the place where flight training will mainly be conducted, I will be trained in T-346 aircraft using the latest training instruments and materials. Not only that, but I will also be working alongside pilots taking part in the training from dozens of countries including Germany, Singapore, and Kuwait, which will be a great opportunity to deepen exchanges with those countries. I hope to learn flight operation skills and many other things through these exchanges that I can make full use of in my future endeavors.



The author (center) moderating a discussion during English class

Microsoft Corporation (the United States)

Colonel MIYAZAWA Toshio

(Currently assigned to Assistant to the Command and Communications System and Intelligence Agency Command and Communications System Section, Ground Staff Office)

I have been studying the topic of “How to Become Superior in Decision-Making by Utilizing ICT” as a fellow at Microsoft in Redmond, Washington, since September 2021. I am cognizant of the fact that carrying out superior decision-making in modern warfare, considered a key factor in victory, is a vitally important research topic.



The author in training at Microsoft in Washington, the U.S.

Through this fellowship program, I have gained multi-faceted perspectives and developed strategic ways of thinking, as well as knowledge of advanced technology, by having animated discussions every day with many different and highly specialized people working around the world. Above all, the friendships I have made will be a treasured and lifelong asset for me.

I intend to further contribute to the defense of Japan by making full use of the knowledge and capabilities I have developed during the program after back to Japan.

Studying at Royal College of Defence Studies Deputy Director KONO Futoshi

In the course I enroll in at the Royal College of Defence Studies, I am discussing about “strategy” with military personnel and government officials who have gathered from all over the world. As expected, their interest in Asia is on China. China’s impact such as Belt and Road Initiative, cyberspace, and artificial intelligence (AI) attracts focus of nations not geographically close to China. My classmates’ countries also face many challenges, such as issues related to Russia and immigration. Overcoming these difficult problems depend on the extent of “good wisdom” combined with diplomacy and economics that nations can come up with. Japan cannot afford to lose this battle of wits.



A photo with a classmate (author is on the right)

Joint Services Command and Staff College (The Joint Services Command and Staff College (JSCSC) (Oxfordshire, the United Kingdom) Lieutenant Commander KITAHARA Kotaro (Currently belonging to the MSDF Command and Staff College)

I have been studying international relations, strategic and operational art, and leadership at the Joint Services Command and Staff College (JSCSC) and King’s College London in the United Kingdom for about a year since summer 2021. Classes are flexible, held both in-person and online. Each day, I have lively discussions with students from both military and civilian spheres representing over 50 countries around the world, all under the skillful eye of teachers with abundant knowledge and experience. I firmly believe that, alongside the knowledge I gain here, my friendships with students from such diverse backgrounds will be a lifelong asset. I intend to make good use of this valuable experience in Japan after returning home.



A group photo with classmates (author is at the center)

professional knowledge and skills, or that it is difficult for them to acquire such knowledge and skills within the SDF, the MOD/SDF commissions education to external institutions, including those abroad, as well as domestic companies and research institutes. Furthermore, based on the MTDP, in order to promote cross-domain

joint operations, the MOD/SDF will strengthen joint education and standardize the curriculum, while at the same time improving the education infrastructure for the utilization of cutting-edge technology and expansion of recruitment including female SDF personnel.

3 Measures Aimed at Ensuring Effective Use of Human Resources

1 Effective Use of Human Resources

With regard to the personnel structure of the SDF, the authorized number of SDF personnel has been on a decline. On the other hand, there has been the need for more-skilled personnel and personnel with expertise in order to respond to the sophistication of equipment as well as the diversification and internationalization of SDF missions.

In light of such circumstances, while ensuring the

Fig. IV-2-1-4 Rank and Retirement Age of SDF Personnel

Rank Designation	Mandatory	Retirement Age
General (GSDF), Vice Admiral (MSDF), General (ASDF)	Sho	60
Major General (GSDF), Rear Admiral (MSDF), Major General (ASDF)	Shoho	
Colonel (GSDF), Captain (MSDF), Colonel (ASDF)	Issa	57
Lieutenant Colonel (GSDF), Commander (MSDF), Lieutenant Colonel (ASDF)	Nisa	56
Major (GSDF), Lieutenant Commander (MSDF), Major (ASDF)	Sansa	
Captain (GSDF), Lieutenant (MSDF), Captain (ASDF)	Ichii	55
First Lieutenant (GSDF), Lieutenant Junior Grade (MSDF), First Lieutenant (ASDF)	Nii	
Second Lieutenant (GSDF), Ensign (MSDF), Second Lieutenant (ASDF)	Sani	
Warrant Officer (GSDF), Warrant Officer (MSDF), Warrant Officer (ASDF)	Juni	
Sergeant Major (GSDF), Chief Petty Officer (MSDF), Senior Master Sergeant (ASDF)	Socho	
Master Sergeant (GSDF), Petty Officer First Class (MSDF), Master Sergeant (ASDF)	Isso	54
Sergeant First Class (GSDF), Petty Officer Second Class (MSDF), Technical Sergeant (ASDF)	Niso	
Sergeant (GSDF), Petty Officer Third Class (MSDF), Staff Sergeant (ASDF)	Sanso	
Leading Private (GSDF), Leading Seaman (MSDF), Airman First Class (ASDF)	Shicho	—
Private First Class (GSDF), Seaman (MSDF), Airman Second Class (ASDF)	Isshi	
Private (GSDF), Seaman Apprentice (MSDF), Airman Third Class (ASDF)	Nishi	

Notes: 1 The mandatory age of retirement for SDF personnel who hold the rank of General (GSDF and ASDF) or Admiral (MSDF), and serve as Chief of Staff of Joint Staff Office, GSDF Chief of Staff, MSDF Chief of Staff, or ASDF Chief of Staff, is 62.

2 The mandatory age of retirement for SDF personnel who hold positions such as physician, dentist, pharmacist, musician, military police officer, or information analyst, is 60.

robustness of the SDF, the NDPG and others plan to raise the mandatory early retirement age of SDF personnel by one year during the period of the MTDP in stages for each rank in order to ensure further utilization of older human resources who have rich knowledge, skills, experience and others. Specifically, the retirement ages of personnel from the rank of Ichii (Captain (Ground Self-Defense Force [GSDF], Air Self-Defense Force [ASDF])/Lieutenant (Maritime Self-Defense Force [MSDF])) to Issa (Master Sergeant (GSDF, ASDF)/ Petty Officer 1st Class (MSDF)), personnel from the rank of Issa (Colonel (GSDF, ASDF)/Captain (MSDF)) to Sansa (Major (GSDF, ASDF)/Lieutenant Commander (MSDF)), and personnel from the ranks of Niso (Sergeant First Class (GSDF)/Technical Sergeant (ASDF)/Petty Officer 2nd Class (MSDF)) and Sanso (Sergeant (GSDF)/Staff Sergeant(ASDF)/Petty Officer 3rd Class (MSDF)) were raised in 2020, 2021, and 2022 respectively. The SDF plans to further raise the retirement age moving forward. The SDF also continues to expand reenrollment after retirement (up to the age of 65) and further promotes utilization of the skills of retired SDF personnel in fields requiring high levels of expertise.

In addition, with the aim to promote manpower saving and automation by leveraging the fruits of technological innovations such as artificial intelligence (AI), the MOD/SDF is creating a support function for AI utilization through, for example, the outsourcing of advisory operations regarding such matters as the promotion of AI utilization and working on the establishment of the necessary environment for AI utilization through, for example, educating SDF human resources through outsourced courses.

In addition, in order to ensure an operating ratio with a limited number of personnel, some MSDF vessels have introduced a system of rotating shift duty among multiple teams of crews to increase the number of

operation days. The introduction of this crew system to new types of destroyers (FFM) is also being considered.

 See Fig. IV-2-1-4 (Rank and Retirement Age of SDF Personnel)

2 Improvement of Living and Work Environment and Treatment

To enable all SDF personnel to maintain high morale and continue to fully exercise their ability, the NDPG and the MTDP state that the MOD/SDF will improve living and work environment. Specifically, to ensure readiness, the SDF will accelerate its acquisition and renewal of the necessary barracks and housing, and also promote measures for deteriorated and earthquake-resistant facilities. Additionally, it will steadily renew worn-out living-related and work equipment, and secure the requisite amount of daily consumables.

Because SDF personnel carry out their missions under a severe environment, the SDF will improve their treatment based on the special nature of their missions and work environment. Specifically, in order to ensure appropriate treatment in accordance with the risk and other particularities of their missions and the characteristics of the area of the office, the SDF will make improvements to special work allowance,¹⁰ etc., and to enable SDF personnel to fulfill their missions with high morale and pride, the MOD/SDF will improve their treatment through measures concerning honors and privileges, including the enhancement of the defensive meritorious badges to appropriately acknowledge their achievements. In light of the severe recruitment environment, the Act on Remuneration, etc. of Ministry of Defense Personnel was revised in 2019 to raise salaries with a focus on starting pay.

3 Dealing with Retirement and Re-employment of SDF Personnel and Related Matters

In order to maintain the strength of the SDF, many uniformed SDF personnel retire in their mid-50s (personnel serving under the early retirement system) or in their 20s to mid-30s (uniformed SDF personnel serving under the fixed-term service system). Therefore, many of them need to find another job after retirement

in order to secure their livelihoods.

Since supporting re-employment is the responsibility of the Japanese Government (the MOD) as the employer, and is crucial both for resolving any concerns that uniformed SDF personnel may have about their future as well as for securing qualified human resources, the MOD conducts support measures such as occupational training useful for their re-employment.

In addition, as the MOD does not have the authority to provide them with employment placement, the Foundation for the SDF Personnel Support Association provides free job consultation services for retired SDF personnel with permission from the Minister of Health, Labor and Welfare and the Minister of Land, Infrastructure, Transport and Tourism.

Retired uniformed SDF personnel have excellent abilities in planning, leadership, faculty, cooperativeness, and responsibility gained through their work performance, education and training. Furthermore, they have various qualifications and licenses acquired through their duties and vocational training. Therefore, they are making positive contributions in a broad range of sectors, including manufacturing and service industries, as well as finance, insurance, real estate, and construction industries, in addition to the areas of disaster prevention and risk management at local governments.

Based on the NDPG and MTDP, the MOD/SDF will strive to further improve re-employment support by expanding vocational training subjects and support for step-by-step acquisition of qualifications before their retirement. The MOD also strives to further utilize retired SDF personnel while strengthening collaboration with local governments and related organizations from the perspective of utilizing the knowledge, skills, and experience of retired SDF personnel.

Specifically, as of the end of March 2022, a total of 601 retired SDF personnel work as crisis management officers and others at local governments' disaster prevention bureaus — 45 prefectural bureaus have 104 of them in total, and 426 municipal bureaus have 497. As this strengthens collaboration between the MOD/SDF and local governments and enhances local governments' crisis management capabilities, including disaster prevention, the MOD/SDF will continue active support for the utilization of retired SDF personnel

¹⁰ Since 2020, special provisions are made for disaster dispatch allowances for employees engaged in disaster dispatch to prevent the spread of new coronavirus infections.

in local governments' disaster prevention bureaus by further enhancing these efforts.

MOD provides “Disaster Prevention and Crisis Management Education” for SDF personnel scheduled for retirement who seek employment in such sectors as disaster prevention departments in local governments. A person who completed the course is certified as a

“regional disaster prevention manager” by the Cabinet Office on request. Previously, SDF personnel had to reach the rank of “Sansa or higher or Ichii with the effective work experience of a Sansa” to be certified. However, in light of the actual conditions of the mission of SDF personnel dispatched to disasters and other factors, the MOD/SDF negotiated the expansion of the conditions

VOICE

New SDF Graduates - Voices of Reemployed Personnel and Their Employers

Chapter
2

Reinforcing Human Infrastructure and Intellectual Infrastructure

IWASAKI KISEN Co., Ltd.

Oiler Mr. TAKAHASHI Junichi (Completed term of service as the leading seaman of LST JS “Towada”)

I completed my term of service as a Maritime Self-Defense Force (MSDF) personnel and joined IWASAKI KISEN Co., Ltd. as an oiler of merchant ships. An MSDF personnel must act on their boss's order, but I must work applying my own judgment to my boss's instructions on merchant ships. In addition, I make it a rule to actively do what I can of my boss's jobs to further broaden the scope of my work.

The company where I work provides me with a severe but homey working environment and enables me to feel how wonderful it is to work aboard merchant ships. Currently, I work hard so that my boss will tell me as soon as possible, “You've gotten used to working on merchant ships.” I want to grow to be a sailor who can convey the appeal of merchant ships as an ex-MSDF personnel.



Mr. TAKAHASHI Junichi of IWASAKI KISEN Co., Ltd.

IWASAKI KISEN Co., Ltd.

Mr. MIYAMOTO Masafumi, Maritime Affairs Division Chief.

Since 2015, our company has participated in corporate explanatory meetings for SDF personnel to be retired and has explained some of our work using our operational communications when interviewing them.

Shortly after joining the company, some retired SDF personnel are confused by the difference between working aboard SDF vessels and our merchant ships. To relieve their confusion, we arrange for them to get on board ships where senior retired SDF personnel are aboard as much as possible as part of an instruction and training program through which retired SDF personnel can acquire basic work skills on merchant ships from their seniors. This training system has enabled retired SDF personnel to develop their skills significantly by competing with each other, and currently, all the seven retired SDF personnel of our company work as foremen.

Our company demands each employee to pay best attention to safe navigation, and it provides a considerate workplace where retired SDF personnel can perform well.



IWASAKI KISEN Co., Ltd.
Mr. MIYAMOTO Masafumi, Maritime Affairs Division Chief.

VOICE

Voices of an SDF personnel who got a new career and his employer: Younger retired SDF personnel

Voice of an SDF personnel who got a new career Ainet Co., Ltd.

Management Planning Office Chief, Mr. OKA Ichiro (Retired from public service as Colonel)

After retiring from serving in the Air Self-Defense Force (ASDF), I became fascinated with the corporate philosophy of Ainet Co., Ltd. I once again joined the workforce, choosing the confectionery wholesale business as a new career in my twilight years.

As the head of the Management Planning Office, I am currently working on the company's Sustainable Development Goals (SDGs), revising rules, managing safety and hygiene, supervising fire prevention, and recruiting new graduates. The wide scope of knowledge and experience I gained as an ASDF commanding officer and in other positions has been very useful for my new career. In particular, I am utilizing my experience engaging in many types of training as a member of SDF personnel in the domain of corporate crisis management, including planning of office firefighting training.

I have come to realize through my new career that, during the era of population aging and declining birthrates, the re-employment of younger retired SDF personnel is deeply meaningful for both companies and retired persons.



OKA Ichiro

Voice of employer

Ainet Co., Ltd.

OGURO Toshiyuki, President and CEO

Ainet Co., Ltd. aims to single-handedly become number one in ordinary profit rate in the confectionery industry, an industry in which corporate mergers are always underway. Our slogans are "Communication and Disclosure" and "Create Something New."

This is the first time that we have employed someone who is retired SDF personnel. However, in line with his own words of, "I will transform from a pilot into a confectioner," we have evaluated Mr. OKA on the basis of his plentiful experience as a former member of the SDF and his positive attitude towards taking on the challenge of a new industry. We have entrusted him to work on a wide range of tasks as the head of the Management Planning Office, from company SDGs and safety and hygiene management, to planning firefighting training.

I have high expectations that he will make use of his trademark can-do spirit to achieve even more from now on.



OGURO Toshiyuki

VOICE Aiming to make Tokyo “the safest city in the world”

The Tokyo Prefectural Deputy Director General for Crisis Management, HARADA Tomofusa

Tokyo has a population of about 14 million people and comprises 62 municipalities including Izu and Ogasawara Islands. In addition, Tokyo is the political and economic center of Japan, and as such, Tokyo's crisis management is connected directly with the crisis management of Japan. With a combined force of about 190 people, the Disaster Prevention Division of the Bureau of General Affairs takes sole responsibility for Tokyo's crisis management. The Deputy Director General for Crisis Management assists the Director General of the Bureau of General Affairs in disaster and crisis management, with the post set up for the arrangement of such matters. At present, the division is working on a wide range of projects for the enhancement of measures to protect the nation, including a review of damage estimates resulting from earthquakes and other natural disasters hitting Tokyo directly as a basis for creating a resilient city in the face of disaster; efforts to create plans for various types of disasters and strengthening regional disaster preparedness; measures in cooperation with

business operators for cases of stranded persons who are unable to return home; and the promotion of digital transformation for disaster prevention, such as the digitization of Victim's Certificates and creating flood damage simulations using digital twins. The functions of the Deputy Director General for Crisis Management are extensive and wide-ranging, and in addition to the above, include responding at times of earthquakes, storm and flood damage, and other disasters, conducting various types of training, and coordinating measures relating to COVID-19. Furthermore, I am also strengthening ties with local government municipalities, as well as the Tokyo Metropolitan Police Department and Tokyo Fire Department, Japan Coast Guard, and the Self-Defense Forces (the SDF), which are all essential for crisis management. In carrying out these wide-reaching functions, the knowledge, experience, and way of thinking I have developed thus far as a member of the SDF, in addition to vitality and physical strength, have been essential. My aim is to make Tokyo the world's safest city together with each member of staff at the Disaster Prevention Division.



The author (second from the back right) at a daily meeting



The author (center) at disaster training

for a regional disaster prevention manager, resulting in the expansion to “Ichii or higher or Nii (First Lieutenant (GSDF, ASDF)/Lieutenant Junior Grade (MSDF)) with the effective work experience of an Ichii.”

In FY2021, in order to increase and enhance SDF Reserve Personnel and SDF Ready Reserve Personnel, in addition to uniformed SDF personnel in fixed-term system, it was decided to provide a scholarship for uniformed SDF personnel in fixed-term system upon retirement when they enter university in Japan, after completing their tenure and serve as SDF Reserve

Personnel or SDF Ready Reserve Personnel while at university.

See Fig. IV-2-1-5 (Major Vocational Training Provided to Support Re-employment)
 Fig. IV-2-1-6 (Re-employment Support in FY2021)
 Reference 59 (Main Measures for Re-employment Support)
 Reference 60 (Employment Situation of Retired Uniformed SDF Personnel in Disaster Prevention-related Bureaus in Local Government)

Fig. IV-2-1-5 Major Vocational Training Provided to Support Re-employment

In order to maintain the strength of the SDF, many uniformed SDF personnel retire in their mid-50s (personnel serving under the early retirement system) or in their 20s to mid-30s (uniformed SDF personnel serving under the fixed-term service system).

Since supporting re-employment is the responsibility of the Japanese Government (the MOD) as the employer, and is crucial both for resolving any concerns that uniformed SDF personnel may have about their future as well as for securing qualified human resources, the MOD conducts support measures such as occupational training useful for their re-employment.

Re-employment support for uniformed SDF personnel serving under the fixed-term service system



Re-employment support for uniformed SDF personnel retiring at an early age

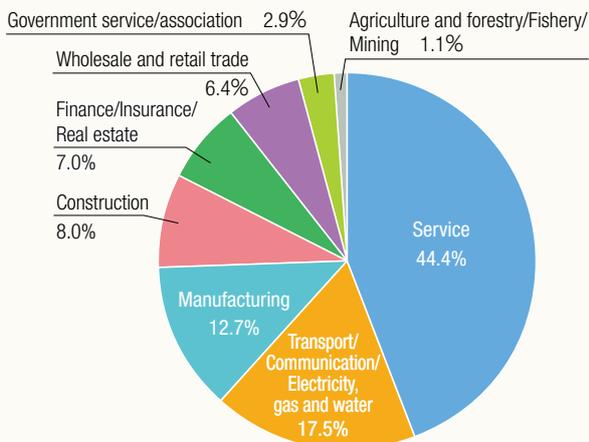


Major Occupational Training Provided to Support Re-employment (Accomplishment in FY2021)

Vehicle operation	<ul style="list-style-type: none"> Large-sized Regular-sized Special (large-sized) Semi-medium-sized Medium-sized
Operation of facility machines	<ul style="list-style-type: none"> Forklift Boiler engineer Heavy-duty vehicle Crane Vehicle for high-place work
Telecommunication technology	<ul style="list-style-type: none"> Electrician Licensed electrician Telecommunication worker Special radio communication operator
Handling of dangerous materials	<ul style="list-style-type: none"> Hazardous material engineer Person responsible for class 3 refrigerating machinery Person responsible for manufacturing safety of high pressure gas
Labor management practice, etc.	<ul style="list-style-type: none"> Drone operator Security guard certification examination Operation manager Warehouse manager Marine technician, etc. Social and labor insurance consultant
Information processing technique	<ul style="list-style-type: none"> Microsoft Office Specialist Examination for basic computer skills IT Passport Fundamental (applied) information technology engineer
Social welfare	<ul style="list-style-type: none"> First-level training for nursing care workers Mental health management Housing environment coordinator for elderly and disabled people Care fitter
Legal practice, etc.	<ul style="list-style-type: none"> Real estate transaction specialist Administrative scrivener Certified professional secretary examination
Others	<ul style="list-style-type: none"> Disaster prevention and crisis management education Financial planner Official Business Skill Test in Book-keeping TOEIC Manicurist Chef Fire defense equipment officer Condominium manager Health officer Welding technician Auto technician Medical office work Dispensing fee calculation Medical clerk Care clerk

* The names of the occupational training topics for each category are listed in descending order of the number of participants.

Fig. IV-2-1-6 Re-employment Support in FY2021



Termination of a term Result of re-employment support for retired personnel	Number of personnel who applied for re-employment support	1,096
	Number of personnel who found a job	1,086
	Percentage of personnel who found a job	99.1%

Early age retirement Result of re-employment support for retired personnel	Number of personnel who applied for re-employment support	3,430
	Number of personnel who found a job	3,352
	Percentage of personnel who found a job	97.7%

Meanwhile, with regard to the re-employment of SDF personnel, new regulations about re-employment were introduced in October 2015, replacing the former prior approval system. As are the cases in other national government employees, the following three regulations were put in place in order to ensure the trust of the public regarding the fairness of official duties: (1) regulation on requesting re-employment of other personnel and retired personnel and requesting information; (2) regulation on seeking employment opportunities at companies in which retired personnel had a stake whilst in office; and (3) regulation on reemployed personnel making requests.¹¹ In order to ensure strict observation of these regulations, bodies comprised of academic experts with no history serving as SDF members (Defense Personnel Review Board's Separate Meeting for Monitoring Reemployment and Cabinet Office's Re-employment Surveillance Commission) monitor the situation, and any violation will be met with penalties.

Additionally, for the purpose of appropriate implementation of unified management and disclosure of reemployment information by institutionalizing notification and announcement of such information by the Cabinet, it has been decided that information on the re-employment status of retired SDF personnel who were in managerial positions (equivalent to the position of Senior Coordinator in the MOD or higher) is to be published every fiscal year by the Cabinet. Most recently, notifications of reemployment of the retired SDF personnel who were in managerial positions submitted during FY2020 were compiled, and a total of 170 cases were officially announced in September 2021.

4 Initiatives to Support Families

In addition to exchanges between units and personnel's families, as well as between the families, the MOD in cooperation with relevant external groups and organizations is also actively working to develop a family support system to be implemented in the event of large-scale natural disasters and other events, which will include receiving cooperation in confirming the safety of the family members of SDF personnel.

In addition, from the viewpoint of being able to maintain a response posture over the long-term, the MOD is promoting various types of family support



Briefing session for families of SDF personnel dispatched overseas (November 2021)

measures in the MTDP in consideration of the families of SDF personnel. For units dispatched overseas or to vessels for operations expected to continue for an extended period of time, the MOD has been creating a communication environment that allows personnel and their families to get in direct contact. Moreover, for units dispatched overseas, the MOD has been implementing a range of support measures for the families of personnel, including supporting additional shipments of comfort items sent from families to SDF personnel on dispatch, holding briefing sessions and establishing consultation desks (family support centers) for families, and creating a website for the families of SDF personnel.

5 Initiatives to Maintain Rigorous Discipline

The MOD/SDF has gained greater expectations from Japanese people in recent years, and it is indispensable for us to gain their support and trust all the time to fully exercise our ability to complete our duties. In order to meet their expectations to this end, the SDF personnel are required to be an invariably disciplined existence more than ever.

The MOD/SDF has so far strived to foster well-disciplined personnel by impressing in them an awareness of compliance with the law through setting up periodic campaigns, such as the “MOD Anti-Drug Abuse Month,” “SDF Personnel Ethics Month,” and “MOD Personnel Harassment Prevention Week,” and taking various effective measures such as thorough instructions on service discipline.

The core element of defense capability is SDF personnel; in order to exert organizational strength and respond decisively to a wide range of situations, the

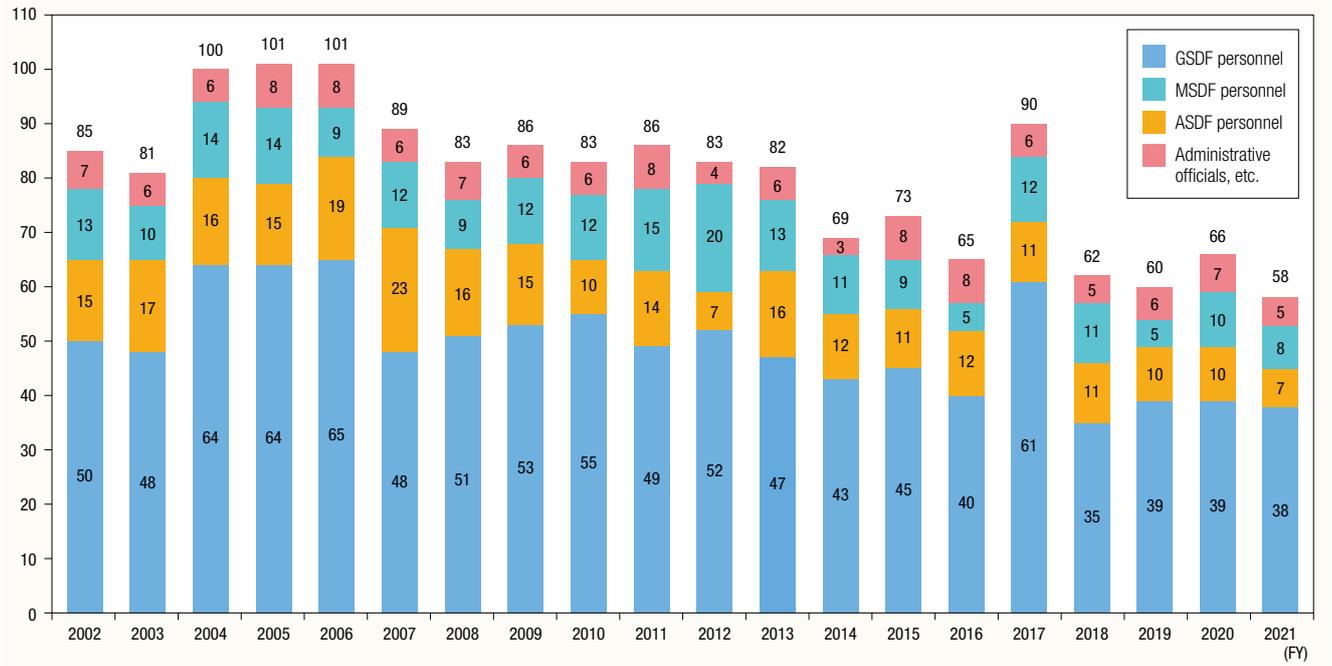
¹¹ Stipulated in Parts 2, 3 and 4 of Article 65 of the SDF Law

Fig. IV-2-1-7 Changes in the Number of Consultations to MOD Power Harassment Hotline

Category	FY2017	FY2018	FY2019	FY2020	FY2021
MOD Power Harassment Hotline	140	252	519	1,010	1,706
Consultation Service for Each Institution	139	271	419	332	444
Total	279	523	938	1,342	2,150

(Unit: No. of Cases)

Fig. IV-2-1-8 Changes in the Number of Suicide Deaths among SDF Personnel



SDF must create a working environment that enables SDF personnel to perform their tasks confidently with high morale and sense of security.

Power harassment, abuse of power in the workplace, is a major problem; such harassment could lead to a violation of the dignity and human rights of SDF personnel, suicide incidents, and adversely affect work environment. In FY2016, as part of countermeasures against workplace harassment, MOD Power Harassment Hotline was established in the Office of the Director, Honors and Discipline Division, Bureau of Personnel & Education on a permanent basis to respond to consultations from SDF personnel over the phone and online. The hotline received 140 consultations from SDF personnel in FY2017, 252 such cases in FY2018, 519 in FY2019, 1,010 in FY2020, and 1,706 in FY2021, increasing the number year by year.

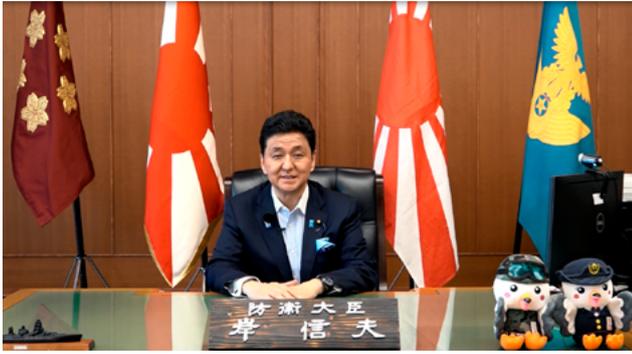
See Fig. IV-2-1-7 (Changes in the Number of Consultations to MOD Power Harassment Hotline)

Power harassment stems from a lack of awareness, a communication gap between superiors and their

subordinates, and other issues. In order to resolve and prevent these issues, the SDF provides (1) the classroom training and remote learning to enhance understanding and raise awareness of power harassment among SDF personnel, (2) the education to promote understanding including soft skills, and to enhance leadership capabilities among SDF personnel (particularly those in managerial positions), and (3) the measures to improve and reinforce the consultation system.

For the purpose of eradicating disciplinary violations such as assault, injury, and workplace harassment, the standards of disciplinary actions have been tightened since March 2020, and the SDF has taken a zero-tolerance approach since then.

Furthermore, as some personnel who have concerns regarding harassment find it difficult to seek advice or be resolved internally, there has been a consultation service staffed by lawyers, in addition to that a consultation service staffed by mental health counselors and others from outside of SDF will be open to consult on weekends, holidays, and after-hours from FY2022.



Minister of Defense Kishi giving his impressions of the counseling experience

6 Initiatives to Prevent Suicide among SDF Personnel

More than 100 SDF personnel died by suicide annually during the period between FY2004 and FY2006. Although the number has gradually declined since FY2007, to 58 in FY2021, the loss still continues, with about 60 SDF personnel taking their own precious lives. That fact is truly a tragic loss for the families of the deceased, as well as a huge loss to the SDF.

See Fig. IV-2-1-8 (Changes in the Number of Suicide Deaths among SDF personnel)

Since FY2021, measures have been implemented to prepare for the period of July through September, when the number of suicide incidents tends to increase, with the mental health awareness campaign months of June and July set forth and promoted in order to suppress the number of incidents.

Furthermore, in September 2021, Minister of Defense and Parliamentary Vice-Minister of Defense put out video messages to personnel describing their thoughts on counseling after experiencing it themselves in an aim to break the psychological barrier toward undergoing counseling among personnel, from the perspective of preventing suicide.

7 Commemorating Personnel who Perished in the Line of Duty

Since the establishment of the National Police Reserve



FY 2021 memorial Service for members of the SDF personnel who lost their lives in the line of duty, conducted with the participation of Prime Minister Kishida

in 1950 and through its evolution via the National Safety Force and the Coastal Safety Force into the SDF today, SDF personnel have been striving to accomplish the noble mission of protecting the peace and independence of Japan. They have been devoting themselves unstintingly to training, day and night, to live up to the expectations and trust of Japanese citizens, regardless of danger, and with a strong sense of responsibility. During this time period, however, more than 2,000 personnel have lost their lives in the line of duty.

In the MOD/SDF, funeral ceremonies in order to express condolences are carried out by each unit to which the personnel who perished in the line of duty belonged. Moreover, in order to eternally recognize the achievements of the SDF personnel who perished in the line of duty, and to express deep honor and condolences, memorial ceremonies are carried out in various forms, such as the Memorial Service for members of the SDF personnel who lost their lives in the line of duty conducted with the participation of the Prime Minister. Achievements of 18 SDF members (12 GSDF, 3 MSDF, and 2 ASDF members, and one member of another organization) who lost their lives in the line of duty were recognized in a Memorial Service in FY2021.¹²

¹² The Monument for SDF Personnel who Perished in the Line of Duty was constructed in 1962 in Ichigaya. In 1998, the Memorial Zone in its current form was completed by combining this monument with other monuments located in the same area. The MOD holds an annual memorial ceremony for SDF personnel who perished in the line of duty, led by the Minister of Defense and with the attendance of surviving family members and the Prime Minister. At the Monument for SDF Personnel who Perished in the Line of Duty in the Memorial Zone, there is an iron plate containing the names and other information of personnel who perished in the line of duty. When foreign dignitaries such as Defense Ministers visit the MOD, they make offerings of flowers, expressing their respect and condolences to personnel who perished in the line of duty. Memorial ceremonies are also held at individual SDF posts and bases.

Section 2

Further Promotion of Work-Life Balance and Women's Participation

The security environment surrounding Japan has become increasingly severe, and both the number and the duration of situations requiring the MOD/SDF's response are increasing. On the other hand, it is anticipated that a number of MOD staff, both male and female, will face time and commuting constraints for childcare, nursing care and other reasons due to big changes in social structure.

Amid such challenging circumstances, ensuring preparedness to consistently respond to various situations requires creating an environment that enables staff to be sound both mentally and physically, maintain high morale, and fully demonstrate their abilities. On the basis of this view, the MOD/SDF promotes initiatives to achieve work-life balance of its staff members.

Also, the MOD/SDF has been proactively encouraging the active participation of female personnel, and the number of female personnel is on the rise in recent years.

The MOD/SDF established the "Action Plan for Promoting the Active Participation of Female Employees and Work-Life Balance" (the "Action Plan") in 2015 in order to promote work-life balance and the further expansion of the recruitment and the promotion of female personnel in a unified manner and has been conducting a variety of initiatives to execute the plan. In March 2021, the MOD/SDF established a new action plan and is promoting initiatives based around two pillars of reform: (1) Working Style Reform for the Promotion of Work-Life Balance, and (2) Reform to Promote Women's Active Participation.

1 Working Style Reform to Promote Work-Life Balance

1 Value and Mentality Reform

In order to implement working style reform, focus needs to be placed especially on reforming the values and mentality of staff in managerial positions regarding working style. Since FY2017, the MOD/SDF has been issuing messages from the MOD/SDF leaders and conducting seminars and lecture meetings aimed at raising awareness concerning working style reform and the concept of work-life balance. With the increase of personnel facing time/commuting constraints for child/family care, the MOD/SDF is also promoting correction of long working hours and encouraging taking leave to ensure proper work-life balance so that every member can exert his/her full potential.

In addition, the MOD/SDF is conducting initiatives for "management reform" aimed at enhancing the management ability of administrative staff.

2 Work Reform in the Workplace

It is important that initiatives for the promotion of work-life balance are implemented in a way which fits the individual workplaces, and that staff members themselves consider specific measures for improving their workplace environment. This approach will lead to developing effective initiatives and workplace environment. Based on this perspective, the annual "Competition for Initiatives to Promote Working Style Reform at the Ministry of Defense" has been held since 2016. The Minister of Defense and the State Minister of Defense respectively honor particularly excellent initiatives, out of the applications received from various organizations and others, and they are used to help achieve work reform at each workplace. The MOD/SDF proactively engages in further enhancement of operation efficiency and efforts for appropriate working hours management to correct long working hours.



REFERENCE: Work-Life Balance Support Handbook

URL: https://www.mod.go.jp/j/profile/worklife/book/handbook_2021.pdf

3 Flexible Working Hours and Locations

Realizing more flexible working hours and work locations is necessary in light of factors such as workload fluctuations and time constraints faced by individuals. For this reason, the MOD/SDF introduced the flextime system in 2016 and enabled its staff to choose Flexible Working Hours by dividing early/late shifts into multiple stages.

Regarding the establishment of a telework environment that allows working at home, since telework started in the Internal Bureau in FY2017, its coverage has been expanded and additional terminals have been installed on a step-by-step basis until FY2020, when it became possible to telework in every organization. In particular, since 2020, many staff members have been teleworking to prevent the spread of COVID-19. From

the viewpoint of business continuity in emergencies, the MOD/SDF promotes the establishment of a telework environment through digitalization including the computerization of documents as well as the installation of more terminals.

4 Development of an Environment that Enables Staff to Realize a Successful Career While Engaging in Childrearing and Nursing Care

The MOD/SDF has developed various schemes, which enable staff to balance work with childrearing/nursing care, such as employing fixed-term staff to secure substitute personnel for staff who take childcare leave and other leave. In particular, the ministry is encouraging its male staff to take childcare leave and other leave to

VOICE Using Work-Life Balance Supports “Balance mission and childcare!”

Air Patrol Squadron 3 (Ayase City, Kanagawa Prefecture) Lieutenant Junior Grade SAKAI Ryosuke

I am now receiving training to acquire a qualification for “mission commander” as a pilot of a P-1 patrol aircraft. Here, I would like to introduce the childcare leave that I have taken since February this year.

In December last year, my wife said to me, “Can you take childcare leave?” We had two infants then (a daughter who was one year and nine months old and a son who was seven months old). My wife would get back to work after six months and I decided to take childcare leave. But because I was concerned that it would affect the workplace, I told my boss about it and thought about “a leave plan that enables me to dedicate myself to childcare while minimizing influence on my work.”

The following chart shows the childcare leave I took. First of all, I secured a time period when I could dedicate myself to childcare as long as possible, taking childcare leave following a winter holiday. In addition, I decided to use the annual leave system as well as childcare leave. Moreover, because I intentionally took training to keep my skills required as a pilot during the period specified on the chart, I was able to minimize any effect on my



A family scene

work.

I was able to balance my work and childcare by combining various support systems like this. It seemed difficult for a male SDF personnel to take childcare leave. But now I have realized that it is possible to balance my work and childcare depending on how I make efforts. I strongly want to continue to balance my work and family life and live a fulfilling life together with my precious family. I sincerely hope that this column will lead you to have more interest in the support system.

December	January	February	March	April	May	June	July	August
Normal service	January 20-31 winter holiday	February 1-March 25 childcare leave	March 26-May 15 normal service	May 16-June 24 annual leave, etc.				Normal service

Childcare plan

promote their participation in family settings. Since FY2020, the ministry is working to enable all male staff with a newborn child to take childcare leave or time off work for a total of one month or more. Also the target rate of childcare leave acquisition by male staff is set at 30% by FY2025.

The MOD/SDF is also developing an environment that enables staff to balance work life with their family life through various initiatives, such as by providing explanations on systems related to childcare and nursing care, introducing role models, and creating “childcare forms” to facilitate managers’ and the human resources department’s thorough and detailed understanding of the situation regarding staff’s childcare.

Furthermore, the MOD/SDF has a system to re-employ SDF personnel who had resigned in their mid-career. This system had been re-evaluated in January 2017 so that personnel who had resigned due to childrearing and nursing care could also be re-employed. The MOD/SDF started recruitment based on this system

in January 2018.

5 Ensuring Childcare Services

Developing an environment in which SDF personnel are able to devote themselves to their duties without worry over childcare or other concerns is important in maintaining a permanent state of readiness. Since April 2007, the MOD/SDF has set up workplace nurseries at GSDF Camp Mishuku, GSDF Camp Kumamoto, GSDF Camp Makomanai, GSDF Asaka Camp housing district, MSDF Yokosuka Naval Base district, ASDF Iruma Air Base, Ichigaya district, where the MOD is located, and National Defense Medical College. In addition, in the event of emergency operations such as disaster relief, the MOD promotes support measures to provide temporary childcare in SDF camps and bases for children of SDF personnel who have no alternative but to attend to duties with their children.

2 Reform for Promoting Active Participation of Women

For the further expansion of the recruitment and promotion of female personnel, the MOD/SDF has been making various efforts to advance the careers of motivated and qualified female personnel by setting up specific goals with regard to the recruitment and promotion of female personnel under the Action Plan. Moreover, the MOD formulated the “Initiative to Promote Active Engagement of Female SDF Personnel - Aiming for Attractive SDF that Adapts to the Times and Environment” (the “Initiative”) in April 2017 to specify its conceptual policy for promoting the active

participation of female SDF personnel.

1 Significance of Promoting Active Engagement of Female SDF Personnel and Personnel Management Policy

The “Initiative” outlines the significance of promoting the active participation of female personnel and the MOD/SDF personnel management policy. Specifically, with SDF duties becoming increasingly diverse and complex, SDF personnel are required, more than ever,



MOVIE: Activities of female GSDF personnel members following their dreams

URL: <https://www.youtube.com/watch?v=-bcA9G417vU>



MOVIE: Female ASDF personnel members who also value their own time while working

URL: <https://www.youtube.com/watch?v=tsk6VAV6LP4>



MOVIE: Activities of female MSDF personnel members

URL: https://www.youtube.com/watch?v=CzUcZITk_bs&feature=youtu.be

VOICE Service performance of a female SDF personnel

The Cooperative Security Department, the International Military Staff (IMS) at the NATO Headquarters (Brussels, Belgium) Major TOMINAGA Asami

The North Atlantic Treaty Organization (NATO) cooperates with international organizations such as the United Nations (UN) and the European Union (EU) to contribute to maintaining international peace and stability. I have been assigned to the Cooperative Security Department—a first for a member of the SDF—and am engaged in operations relating to coordinating cooperation between NATO and other international organizations, as well as formulating and implementing various plans.

I think that in order to work side by side with staff from member countries, it is important to share a common understanding and have a wide understanding of NATO's mission, its organizational structure and decision-making methods, the broader situation involving NATO at present, the ways of thinking of each member country, and other matters. I will do my best to ensure that my work at NATO goes toward helping strengthen future cooperation between Japan and NATO.

Flight Officer, Air Patrol Squadron 5 (Naha City, Okinawa Prefecture)

Lieutenant (Senior Grade) KIKUCHI Ayako

I engage in patrolling and monitoring missions and training flights in waters around Okinawa every day as a pilot of a P-3C patrol aircraft on the Fifth Squadron. In addition, I have a six-year-old son and a four-year-old daughter. But I strive to balance my work and childcare together with my husband who is a pilot belonging to the same squadron.

Although I am sometimes ordered to suddenly go on a mission of P-3C, I can secure a work-life balance watching my children grow up with consideration from my colleagues and other people around me. I will continue to work hard to build a cheerful and pleasant family fulfilling my duties with the support of my husband.

Chitose Air Traffic Control Squadron, ASDF (Chitose City, Hokkaido Prefecture)

Air Traffic Controller, Senior Master Sergeant TANAKA Yuko

As an air traffic controller, my work involves offering guidance and granting permission for Self-Defense Force (SDF), U.S. armed forces, and civilian aircraft using the Chitose Air Base and New Chitose Airport to take-off and land so as to ensure aircraft safety and flight efficiency. In addition, my position as a senior Sergeant allows me to spend each day in a fulfilling way, giving instruction and advice to other sergeants and airmen in respect of our team's duty management. Air traffic control involves a high level of responsibility, as even a momentary error could lead to a serious accident. However, I have come to enjoy working in this



In front of NATO Headquarters



The author inspecting a P-3C patrol aircraft before its flight.



The author working in the control tower

role thanks to the support of my seniors, colleagues, and family. I will continue to work hard and have pride in my work.

to have multifaceted capabilities including higher levels of knowledge, decision-making ability, and skills. In addition, under a severe recruitment environment due to the declining birthrate and continuing trend of higher education, it is anticipated that the number of SDF personnel with time and location restraints, including those involved in childcare, nursing care, and other responsibilities, will significantly increase.

In light of these changes, the SDF is required to evolve from a conventional organization with an emphasis on homogeneity among the members, into an organization that is capable of incorporating diverse human resources in a flexible manner.

At present, the largest human resource that the SDF has not been able to fully utilize is women, who account for half of the population targeted for recruitment. Promoting the active engagement of female SDF personnel has the following significance: (1) securing useful human resources; (2) utilizing diverse perspectives; and (3) reflecting values of the nation. For this reason, the MOD/SDF has decided to open up a path for female personnel with motivation, ability, and aptitude to have opportunities to demonstrate their abilities in various fields, and aim for doubling the ratio of female SDF personnel.

In terms of employing and promoting female SDF personnel, the MOD/SDF sets out a personnel management policy to ensure equal opportunity between men and women and assign the right person to the right place based on the person's motivation and ability/ aptitude.



Two female SDF personnel members during amphibious vehicle basic course training

2 Removal of the Assignment Restriction of Female SDF Personnel

The MOD/SDF has been reviewing the restriction of assignment of female personnel. With the removal of the restriction on female assignments in submarines in December 2018, the restriction against females was completely removed with the exception of the units where female personnel cannot be assigned for reasons of maternity protection (a part of the GSDF Nuclear Biological Chemical (NBC) Weapon Defense Unit [chemical] and Tunnel Company Units).

With the removal of the restriction on female assignments, the first female fighter pilot and the first female paratrooper went on duty in 2018 and March 2020 respectively. Moreover, female SDF personnel began serving onboard submarines in October 2020.

3 Expansion of the Recruitment and Promotion of Female Personnel

Under the new Action Plan, efforts will be made for the systematic expansion of the recruitment and promotion of female personnel under new numerical targets for recruitment and promotion that have been revised upward.

(1) Female SDF Personnel

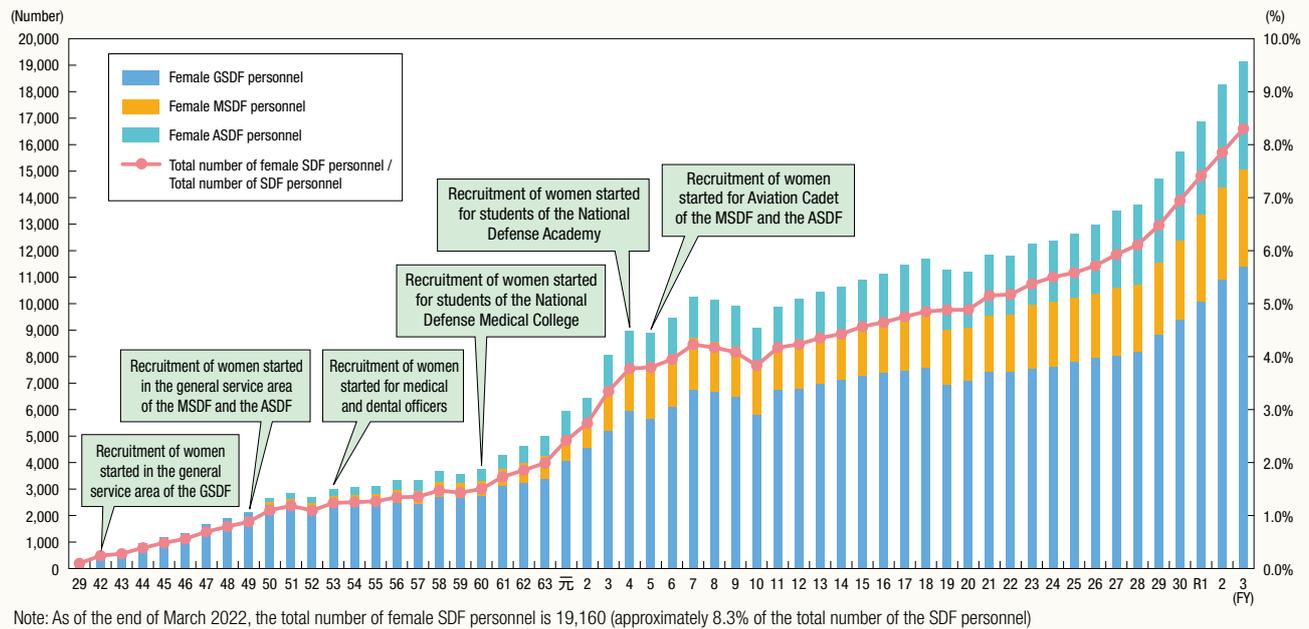
As of the end of March 2022, the number of female SDF personnel is about 19,000 (about 8.3% of total SDF personnel). Compared with ten years ago (end of March 2012, about 5.4% of total SDF personnel), this is a rise of 2.9 percentage points, indicating that the ratio of female SDF personnel has been on the rise in recent



Female SDF personnel during training to operate an MSDF air-cushioned boat

Fig. IV-2-2-1

Changes in Incumbent Female SDF Personnel



years.

Regarding the recruitment of female SDF personnel, the targets for the proportion of newly employed female SDF personnel among total newly employed SDF personnel and the proportion of female SDF personnel among total SDF personnel have increased to 17% or higher in and after FY2021 and 12% or higher by FY2030 respectively. In addition, the MOD/SDF will improve education, living, and work environments for female SDF personnel in line with the increasing number of female SDF personnel recruited.

In addition, with regard to promotion, MDO/SDF aims to increase the proportion of women among SDF personnel with a rank of field officer or higher to 5% or higher by the end of FY2025.

 See Fig. IV-2-2-1 (Changes in Incumbent Female SDF Personnel)

(2) Female Administrative Officials, Technical and Engineering Officials, Instructors, and Others

As of the end of March 2022, the number of female civilian personnel — administrative officials, technical

and engineering officials, instructors, and others — is approximately 3,700 (about 26.4% of total civilian personnel). Compared with ten years ago (end of March 2012 when females made up 23.4% of the total civilian personnel), this is a rise of 3.0 percentage points, indicating that the ratio of female civilian personnel is on a rising trend in recent years.

With regard to recruitment, in line with the overall government target, the MOD has set up its goal of ensuring that women account for over 35% of recruits in and after FY2021. Regarding promotion, as a goal to be achieved by the end of FY2025, the proportion of women of the Unit-Chief level at the ministry proper or equivalent would be 35%, the proportion of women of the Division-Director level at local organizations and Assistant-Division-Director level at the ministry proper or equivalent would be 10%, the proportion of women of the Division-Director level at the ministry proper or equivalent would be 6%, and the proportion of women of the Designated-Official or equivalent level would be 5%.

Section 3

Reinforcing the Intellectual Base

The NDPG stipulates that efforts be made to promote security education at educational institutions in order to facilitate understanding of security and crisis management among the populace. Within MOD/SDF, in order to achieve at high levels both academic research and policy-support by the National Institute for Defense

Studies (NIDS), MOD/SDF will facilitate NIDS' collaboration with the policy-making sector. MOD/SDF will further enhance its defense research regime with NIDS playing central roles. The MOD/SDF's measures to reinforce the intellectual base are explained below.

1 MOD Initiatives toward Strengthening the Intellectual Base

As a variety of challenges and destabilizing factors grow more apparent and acute, and the security environment surrounding Japan becomes more severe, it is increasingly important that the MOD's research and educational institutions further elevate the quality of their research and reflect those results in national policy making, while also promoting greater understanding of knowledge and information related to Japan's security policy among the public, including the results of such research. Accordingly, the MOD/SDF is working to reinforce the intellectual base through NIDS and its schools by:

(1) strengthening the research system of the MOD/SDF

through networking and systematic collaboration with other research and educational institutions, universities and think-tanks both at home and abroad;

- (2) providing policy-making departments with high-quality research products backed by advanced expertise and research capabilities;
- (3) disseminating highly reliable information based on the aforementioned research products;
- (4) contributing to the promotion of security-related education by dispatching instructors to educational institutions and holding public symposiums.

2 Efforts by the National Institute for Defense Studies

The National Institute for Defense Studies (NIDS), taking advantage of its unique position as a national academic research and educational institution related to security, conducts policy-oriented research and studies primarily on security and military history, and functions as a national defense university-level academic and educational institute for the training of senior MOD/SDF officials. In addition, NIDS manages and publishes a large volume of documents on military history as a facility possessing historical materials, in accordance with the Public Records and Archives Management Act, thus serving as the largest research center on military history in Japan.

NIDS also places emphasis on international exchange and information transmission. It conducts research

exchanges and joint research with defense universities and security research institutes of other countries with the objective of contributing to a stable security environment by promoting relations of trust with those countries while improving the quality of its studies and education. In addition, it proactively disseminates information¹ by releasing its major research outputs on its website and by issuing various annual publications, such as the "China Security Report" and "East Asian Strategic Report"

Furthermore, the Institute holds international conferences such as the International Symposium on Security Affairs, the International Forum on War History and the ASEAN Workshop to which it invites experts from Japan and abroad, and participates as a member

¹ The results of the National Institute for Defense Studies' research are provided to the MOD on a timely basis as a resource for policy making, and its major publications such as East Asian Strategic Review, NIDS China Security Report, Security & Strategy, Military History Studies Annual, NIDS Commentary and Briefing Memo are also made publicly available on the NIDS website.

every year in the ASEAN Regional Forum (ARF) Heads of Defense Universities/Colleges/Institutions Meeting as well as the North Atlantic Treaty Organization (NATO) Conference of Commandants.

NIDS celebrates its 70th anniversary on August 1, 2022. Moving forward, it will continue to strive to play a leading role in conducting research related to Japan's security based on the needs of the times.

3 Efforts by Other Institutions

The National Defense Academy of Japan (NDA) is responsible for training and educating those who are to become SDF officers, providing more advanced training and education for SDF personnel and others and conducting the necessary research relevant to those training and education.

According to its role, the NDA conducts a large volume of research related to general academics and defense policy, and upholds a high standard of such research. Starting from FY2022, it will conduct research including that of basic defense with greater attention paid to dual-use technology than it has done so previously, and feed back the results to other organizations within the Ministry including the Acquisition, Technology and Logistics Agency.

In addition, the results of the NDA's research, mainly surrounding the themes handled by the Center for Global Security,² are widely disseminated outside the academy through presentations at seminars and colloquia held by the NDA, through online publications such as the

“Global Security Seminar Series” and “Global Security Study Series,” etc.

SDF Command and Staff Colleges and other relevant organizations, periodically hold various security-related seminars and symposiums which are attended by researchers and audience, from industry (companies), government (national and local) and academia (universities, etc.) to contribute to research and studies regarding Japan's security in the future through discussions and opinion exchanges from a variety of different perspectives.

They also strive to maintain and improve the quality of their research and studies by obtaining necessary knowledge and information through activities such as hosting guest researchers and conducting exchanges with educational and research institutions both in Japan and overseas. In addition, they proactively disseminate information³ by releasing major research products on their websites, issuing various publications and other means.

² The Center for Global Security is a department established within the Institute for Advanced Studies and is responsible for planning, drafting, and implementing research and joint research projects related to global security (research conducted together with the Acquisition, Technology and Logistics Agency, etc.), as well as disseminating the results of such global security-related research externally.

³ The JGSDF Training Evaluation Research and Development Command publishes Ground Defense, the JMSDF Command and Staff College publishes the Japan Maritime Self-Defense Force Command and Staff College Review, and the Air Command and Staff College publishes Air & Space Power Studies, etc.

For the SDF to perform its mission, SDF personnel must remain in good health through appropriate health management. Also, it is important for the SDF to make continued efforts to enhance and strengthen its capabilities in military medicine for protecting the lives of the personnel engaging in a variety of services as much as possible.

Under the circumstances where the SDF's missions are becoming more diverse and internationalized, it

is important to appropriately and accurately carry out various medical activities, such as medical support in disaster relief and international peacekeeping activities, and capacity building in the medical field.

The MOD/SDF, therefore, is enhancing and strengthening its medical capabilities so that they can appropriately respond to various emergency events and carry out its multiple missions in Japan and abroad.

1 Enhancing Seamless Medical Care and Evacuation Posture

1 Enhancement of Medical Functions in Various Emergency Situations

In order to respond to various emergency situations, the MOD/SDF will enhance a seamless medical care and evacuation posture from the frontline to the final transport destination, while considering joint operation, in accordance with the MTDP.

Specifically, for the purpose of providing maximum protection for the lives of personnel injured on the frontline, the MOD/SDF will enhance medical functions for seamless implementation of a series of medical care and transportation starting from emergency life support by Frontline Medics¹ and damage control surgery (DCS)² at a medical base equipped with a field operation system³ to safe and speedy transportation to an SDF hospital that is the final destination for complete cure. Other measures necessary for the implementation of the above will be taken, including preparation of materials and equipment necessary for DCS, patient management after surgery, and the whole body control of patients

during transportation, and preparation required for introduction of armored ambulances.

On this occasion, the MOD/SDF decides to strengthen the organization of the Joint Staff for control and coordination concerning SDF medical operation on a daily basis.

2 Enhancement of Medical Functions in the Southwestern Region

In the enhancement of seamless medical care and evacuation posture, in light of the geographical characteristics of Japan, with its vast sea area and large number of remote islands, the MTDP places a special focus on the enhancement of medical functions in the southwestern region. Specifically, the MOD/SDF will develop maintenance and evacuation guidelines for medical bases in the region and improve the medical equipment reserve system in main island of Okinawa and smaller islands.

- 1 "Frontline Medics" are, from among those who are certified as Licensed Practical Nurses (Refer to the Assistant Nurse stipulated in Article 6 of the Act on Public Health Nurses, Midwives, and Nurses [Act No. 203 of 1948]) and Emergency Life-Saving Technicians (refer to the Emergency Life-Saving Technician stipulated in Section 2, Article 2 of the Emergency Life-saving Technicians Act [Act No. 36 of 1991]), those who have completed the training curriculum approved by the council stipulated in Article 4 of the Directives Relating to Emergency Life-Saving Actions (MOD Directive No. 60 of 2016).
- 2 Hemostasis by pressing/placing gauze on damaged internal organs, suture, etc., and emergency operations to prevent contamination with intestinal tract contents. The purpose is to stabilize the patient's condition to the level where transfer is possible.
- 3 Mobile operating room sheltered in a large truck with one of the four functions necessary for operation (operation, operation preparation, sterilization and medical supply vehicles). Thoracotomy, laparotomy, craniotomy, and other operations to save lives can be conducted.

2 SDF Hospitals Serving as Hub Hospitals with Enhanced Functions

The role of SDF hospitals is to admit and treat injured SDF personnel and other persons transported from their area of activity in various emergency situations, while in normal circumstances these hospitals provide medical care to SDF personnel and their families, etc. These hospitals also play the role of educational institutions that train medical personnel to maintain and enhance their skills.

In accordance with the NDPG and the MTDP, the MOD opened SDF Iruma Hospital in March 2022 which will also function as a hub for transport to the final hospital destination for complete cure, and it will continue to concentrate human and medical resources

on the consolidation of SDF hospitals with increased performance levels to establish an efficient and high-quality medical care regime by improving their capacity as transfer hospitals with a certain level of medical care in response to infections, gunshot wounds, and other trauma and injury caused by NBC weapons in addition to general practice. SDF hospitals have been also advancing regional medical care. Some SDF hospitals are designated as secondary emergency medical institutions by local municipalities to accept emergency patients. SDF Central Hospital, in particular, responded to about 5,000 ambulances in 2021.

3 Response to COVID-19

In response to the spread of the novel coronavirus disease (COVID-19) infection, the MOD/SDF has been accepting COVID-19 patients at SDF hospitals and the National Defense Medical College Hospital (NDMC Hospital) since February 1, 2020. 3,553 COVID-19 patients in total (as of 5:00 p.m. on March 31, 2022) have been accepted by the SDF Central Hospital, SDF district hospitals in Sapporo, Ominato, Misawa, Sendai, Maizuru, Iruma, Yokosuka, Fuji, Hanshin, Kure, Fukuoka, Sasebo, Kumamoto, Beppu and Naha and the NDMC Hospital. The SDF Central Hospital and the NDMC Hospital in particular have been assigned

as Designated Medical Institutions for Type I Infectious Diseases⁴ (each possessing two hospital beds that are in conformity with standards specified by the Minister of Health, Labour and Welfare and are outfitted as depressurized rooms, etc., capable of handling Type I Infectious Diseases⁵) by Tokyo Metropolitan Government and Saitama Prefecture and have extended their acceptance of patients to their general wards in response to the increase in the number of patients.

In order to accelerate vaccination against COVID-19, the SDF opened up their large-scale vaccination centers in Tokyo and Osaka from May 24 to November 30,



Preparation for administering vaccines at a large-scale vaccination center (September 2021)



Administration of vaccines at a large-scale vaccination center (September 2021)

⁴ Designated medical institutions for Type 1 Infectious Diseases are designated by prefectural governors as medical institutions to hospitalize patients of Type 1 and Type 2 infectious diseases and infectious diseases like novel influenza (Article 6, Act on the Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases [Act No. 114 of 1998])
⁵ Ebola hemorrhagic fever, Crimean-Congo hemorrhagic fever, smallpox, South American hemorrhagic fevers, plague, Marburg disease, and Lassa Fever (Article 6, Act on the Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases [Act No.114 of 1998])

2021, and administered a total of 1.96 million vaccine doses. In response to the Omicron variant, the SDF opened up their large-scale vaccination sites again in Tokyo on January 31, 2022 and in Osaka on February 7, 2022, to begin administering booster shots.

The MOD/SDF is taking advantage of the lessons learned from its efforts in response to the recent COVID-19 outbreak to further enhance its medical functions through the FY2021 supplementary budget, which includes costs related to PCR testing during training and other activities, the procurement of PCR testing instruments and other medical equipment, etc.

The SDF Central Hospital and the NDMC Hospital also conduct drills for infectious disease response. For example, the SDF Central Hospital works to establish cooperation procedures with relevant institutions by regularly conducting drills for accepting patients of infectious diseases under the assumption that there are Type I Infectious Disease patients. These drills benefited

activities in the face of COVID-19 outbreaks.

In September 2020, the SDF Central Hospital cooperated with the Setagaya Medical Association, the Japanese DMAT, the Metropolitan Police Department, the Tokyo Fire Department, and others as well as the GSDF Eastern Army and the GSDF Medical Service School to conduct a drill for accepting large numbers of injured persons under the assumption that simultaneous terrorist attacks had occurred during a large-scale sports event. In November 2020, it conducted a drill for accepting patients of infectious diseases to confirm acceptance procedures for novel influenza patient during the COVID-19 epidemic as part of its ongoing efforts to strengthen cooperation with relevant institutions and enhance its capabilities as a medical institution equivalent to a disaster base hospital.

 **See** Part II, Chapter 4, Section 2-1 (Overview of Defense-Related Expenditures)

4 Strengthening the Function of the NDMC

As the only educational institution of the MOD/SDF for the training of SDF personnel who are physicians (medical officers), SDF personnel who are public health and registered nurses (nursing officers) and technical officers, the NDMC plays the role to train and produce the primary medical staff as well as to maintain and improve their skills.

In this context, the NDPG and the MTDP state that the MOD/SDF will improve operations of the NDMC and enhance its research functions, and endeavor to secure high-quality talents.

Specifically, the MOD/SDF will strengthen the system for training of excellent medical and nursing

officers, and improve the conditions for providing high-quality medical care either equaling or surpassing other university hospitals. The MOD/SDF will also enhance research functions of the NDMC Research Institute and collaboration with medical care departments of the GSDF, MSDF, and Air Self-Defense Force (ASDF). Through these initiatives, the MOD/SDF will further enhance the education/research conditions at the college.

The NDMC Research Institute started advanced research of defense medicine in FY2015 and has been conducting research contributing to SDF troop operation, which includes research on blast injury and damage caused by shock waves.

5 Enhancement of Education for Medical and Nursing Officers

While greater abilities are required for personnel engaged in medical care, such as medical officers, due to the diversification of missions, the amount of medical

officer positions that have been filled sits at around 90%, although the rate has been improving year by year. Such low sufficiency is caused by medical officers leaving the



MOVIE: Student life at the NDMC
URL: https://youtu.be/dgZ8FQo_jq0

SDF, one of the major reasons of which is the lack of opportunity to engage in medical training and practice. The MOD/SDF continues to implement various measures with diversified career options to prevent medical officers from leaving the SDF by enhancing clinical education after graduation from the NDMC and other institutions, promoting various initiatives for ensuring more opportunities for medical officers to engage in medical practice, helping them acquire and improve specialized knowledge and skills in areas such as infectious diseases and emergency medicine, as well as increasing their motivation for work. Through these measures, the MOD/SDF is working to improve the sufficiency of medical officers and maintain and improve their medical skills. In the MTDP, the MOD/

SDF will continue efforts to improve the sufficiency of medical officers and further promote the appointment of SDF Reserve Personnel who are physicians to handle missions that are expected to increase.

Similar measures are taken for nursing officers to maintain and improve their knowledge/skills through practice at external hospitals, etc.

Moreover, medical personnel and medical staff, such as radiological technologists, clinical technologists, and emergency life-saving technicians, are educated and trained at SDF hospitals, schools and other relevant institutions so that the SDF can perform diverse missions and missions under special circumstances, including international peace cooperation activities and large-scale disasters.

6 Enhancement of Capabilities for Treating War Injuries

In order to improve first aid capabilities on the frontline, and damage control surgeries and treatment while transferring the injured, the MOD/SDF has conducted research on relevant initiatives taken by the U.S. Forces and others, carried out reviews for appropriate and accurate life-saving activities, and enhancing education, training and research, including improvement of capabilities to treat combat injuries.

For the improvement of first aid capabilities on the frontline, since FY2017 the MOD has been providing specific education and training for SDF personnel who are licensed as both Licensed Practical Nurses and Emergency Life-Saving Technicians to acquire the necessary knowledge and skills, so that the SDF personnel with these licenses will be able to provide life-saving procedures⁶ to SDF personnel injured in the course of the performance of their missions in the area where the injury occurred prior to their transfer

to SDF hospitals and other medical facilities. SDF personnel who have completed this education and training curriculum have been designated as “Frontline Medics” and allocated to units. In FY2019 the SDF started education and training for Frontline Medics to maintain their knowledge and skills necessary for relief treatment.

In addition to frontline relief treatment and other war injury treatment on the ground, based on the MTDP, the SDF will enhance education and training tailored to the characteristics of the units and equipment of the GSDF, MSDF, and ASDF, which include war injury treatment on board ships or aircraft, while promoting the development of training equipment for medical transport by air and teaching materials for improving first aid capability. The SDF will also promote development of medical training infrastructure necessary for combat injury education and common to all SDFs.



MOVIE: Drill for accepting large numbers of injured persons 2020

URL: <https://youtu.be/dvXUYqrh-Y>

6 First aid treatment for those with symptoms such as airway obstruction and tension pneumothorax caused by injuries, and other treatments such as administration of analgesic for pain relief.

7 Improving Preparedness Necessary for International Cooperation

The MOD/SDF has dispatched instructors for the United Nations Field Medical Assistant Course (UNFMAC) as part of the UN Triangular Partnership Programme (UNTPP) and participated in medical care, etc. in overseas disaster areas as part of international disaster relief activities. They have also actively conducted capacity building and joint exercises in submarine medicine, aviation medicine, disaster medicine, and other medical fields for the benefit of individual countries, mainly in the Indo-Pacific region.

In light of the response to the Ebola virus disease outbreak in West Africa in 2014, the MOD/SDF is accelerating training of human resources with expertise to contribute to overseas activities against infectious diseases that could be a global threat and to the development of a framework including the NDMC, while at the same time making various efforts to improve the capabilities to respond to infectious diseases.

Specifically, the MOD/SDF is currently improving the necessary facility equipment at units, the NDMC Hospital and the SDF Central Hospital. The aims of this improvement are to provide personnel training for the enhancement of capabilities to deal with

infectious diseases, improve equipment to transport infectious disease patients and develop readiness for offering medical treatment to patients affected by Type I infectious diseases which are classified as the most dangerous category among known infectious diseases. The SDF Central Hospital and the NDMC Hospital were designated as a medical institution for Type I infectious diseases in April 2017 and March 2019 respectively and have been working to improve capabilities to deal with infectious diseases.

For the future, the MOD/SDF will develop systems necessary for various international cooperation initiatives, which include the upgrading of mobile medical systems that are effective for overseas medical activities and dispatch of SDF personnel to the medical departments of international organizations, the U.S. DoD and others.

In addition, the law was amended in 2022 in order to allow the SDF to provide foreign armed forces with medicines that are classified as narcotics or psychotropic substances. This has enabled the SDF to rapidly provide medications needed to save the lives of the injured, such as analgesic drugs and sedatives.

Military technologies in recent years are showing remarkable advances. Against the backdrop of such technological advances, contemporary warfare increasingly features capabilities combined across all domains: not only land, sea and air but also new domains, which are space, cyberspace and electromagnetic spectrum. Aiming to improve overall military capability, states are seeking to gain superiority in technologies that undergird capabilities in these new domains.

Moreover, they are expending large sums on developing hypersonic weapons and other potentially game-changing weapons that leverage leading technologies, as well as conducting research and development on autonomous unmanned weapon systems equipped with artificial intelligence (AI), thus working towards their swift operationalization. Further technological innovations in quantum technology including quantum computing and quantum cryptography and the information and communication technology (ICT) sector including the 5th generation mobile communication system (5G) will make it even more difficult to forecast future warfare.

Moreover, in addition to imports of equipment manufactured overseas remaining at a high level

following the enhancement and increased complexity of such equipment, the introduction of technologically advanced equipment with soaring unit prices has led to a downtrend in procurement volume from domestic companies, despite a growth in domestic procurement in recent years. Therefore, Japan's defense industrial and technological bases have been subject to severe conditions.

Amid such a situation, it is essential to work on (1) reviewing equipment structure, (2) reinforcing technology base, (3) optimizing equipment procurement, (4) strengthening defense industrial base, and (5) defense equipment and technology cooperation in order to ensure a necessary and sufficient defense capability in terms of both quality and quantity for the construction of a Multi-domain Defense Force. In conjunction with efforts (1) through (5), it is extremely important for the MOD to utilize its security expertise while actively cooperating in (6) economic security efforts, which the Government as a whole is promoting intensively from the perspective of enhancing Japan's economic autonomy and technological supremacy above other countries, thereby increasing Japan's level of indispensability to the international community.

Section 1 Reviewing Equipment Structure

1 Initiatives for Construction of Optimized Equipment Structure

In order to acquire sufficient capabilities for cross-domain operations in view of the aging population with a declining birth rate and the severe fiscal situation, it is essential to further promote initiatives to optimize equipment structure. The Mid-Term Defense Program (FY2019-FY2023; MTDP) provides that the Ministry of Defense (MOD)/Self-Defense Forces (SDF) will work on the following items to build an effective and optimized equipment structure from the perspective of joint operation.

1 Enhancement of Joint Staff Functions

Under the MTDP, the MOD/SDF will examine the current equipment structure and strengthen the functions of the Joint Staff in order to build an effective and rational equipment structure from a joint operation perspective. Based on this assumption, the MOD/SDF will undertake the building of an equipment structure from the perspective of joint operation at an appropriate time during the MTDP period.

2 Development of Product Families, Standardization of Specifications, Joint Procurement, etc.

Under the MTDP, from an integrated perspective, the MOD strives to reduce expenses incurred in development, acquisition, and maintenance by the development of product families,¹ standardization of equipment specifications, and joint procurement of equipment common to all SDF services. For example, a multipurpose surveillance radar with standardized specifications is being developed as a successor to multiple types of radar used by the GSDF, including coastal radar and low-altitude radar. In terms of upgraded Type of 12SSM, development began in FY2021 on ground-based guided missiles to be fired from systems mounted on GSDF trucks. In developing these ground-based missiles, the MOD is working on

a design to standardize the functionality, performance, shape, components, and other aspects of guided missiles with a view to developing a product family that includes shipborne guided missiles fired from systems mounted on MSDF vessels and airborne guided missiles fired from ASDF fighters, while also working to shorten the development period.

3 Suspending Operation of Equipment of Lowered Priority

The MTDP plans to reduce the number of aircraft types, suspend the use of equipment of lowered priority, and review or terminate projects of low cost-effectiveness.

Therefore, 203mm self-propelled howitzer and other equipment whose priority is low in light of the security environment surrounding Japan will not be replaced. Biological Reconnaissance Vehicles and other

VOICE The forefront of the development of domestically produced missiles

Aircraft & Missile Systems Division, Mitsubishi Heavy Industries, Ltd.

JGSDF&JMSDF Programs Section Department of Missile Systems

Manager HATTORI Kazuya

Our company has been manufacturing Type 12 Surface-to-Ship Missiles (12SSM) developed with a focus on the features of Japan surrounded by seas on all sides and has also been developing upgraded Type of 12SSM.

In July 2021 we received the order from the Ministry of Defense (MOD) for a contract to develop an upgraded Type of 12SSM with a significantly longer range of 12SSM. As there are needs for rapidly enhanced stand-off defense capabilities, we assembled experts in fluids, combustion, structures, etc. from the division of research and from the division of existing missiles to develop longer-range missiles efficiently in a short time. By making use of our expertise, we are proceeding with prior examinations in parallel with designs, examining airframe bodies with fluid simulations and acquiring combustion data of propulsion devices with tests. We will continue to promote our development, making full use of our technological and manufacturing bases and performance records with 12SSM, as well as of our

latest technologies and experience acquired through the development of many types of missiles to be equipped to various platforms of land, sea, and air.

To deal with a more complicated and advanced operation environment as well as this missile system, it is essential to have technologies such as radio wave, communications and electronic devices, propulsion devices, and system integration technologies. Our company cooperates with many partner companies, commencing with domestic defense equipment manufacturers, and carry out activities in order to contribute to the build-up of defense capability, which is the base of Japan's security, through the development, maintenance, and improvement of these various types of technologies.



The engine performance test is being conducted. The author is at the back.
[Contributed by Nagoya Guidance & Propulsion Systems Works, Mitsubishi Heavy Industries, Ltd.]

¹ This refers to adding different variations to the functions and performance of equipment to enable them to respond to different operational demands, while standardizing their basic component parts.

equipment that are procured in a small number with low cost effectiveness will be decommissioned while

maintaining the capabilities.

2 Initiatives to Make the Most of Limited Human Resources (Manpower Saving and Automation)

In view of the severe security environment surrounding Japan and the rapid development of the aging population with a declining birth rate, it is important to maximize defense capability by effectively utilizing the limited human resources to the utmost. Therefore, the current MTDP plans to actively work on manpower saving and automation of defense equipment.

1 Initiatives for Automation

The MTDP plans to actively promote initiatives towards automation through such means as the introduction of AI to data processing and decision making regarding unit operation, the procurement of unmanned aerial vehicles (UAVs), and R&D of unmanned surface vehicles (USVs) and unmanned underwater vehicles (UUVs).

Therefore, the MOD/SDF, in addition to the procurement of Global Hawk and Ship-Based UAVs of the MSDF, will promote research exploring the concept of unmanned combat support aircraft that would team with the future fighter aircraft (F-X) and other manned aircraft. In addition, the MOD/SDF plans to promote research on UUV with convertible mission modules capable of performing warning and surveillance and

other missions.

2 Initiatives for Manpower Saving

The MTDP plans to actively promote initiatives to save manpower through such means as streamlining in the design of new types of destroyers (FFM), submarines, etc. and use of remote control for radar sites and other equipment. In June and December 2021, the naming and launching ceremonies were conducted for JS Noshiro and JS Mikuma respectively under the FY2019 Plan (01FFM). Other initiatives include the introduction of patrol vessels that can be operated by a smaller crew (about 30 members) through dedication to intelligence, surveillance, and reconnaissance (ISR) and the consideration of utilizing AI in defense equipment such as research on SAR/ISAR image identification with AI.



Naming and Launching Ceremony of a FY2019 plan frigate (01FFM) JS Noshiro

Section 2 Reinforcing Technology Base

1 Necessity of Reinforcing Technology Base

Japan’s advanced technological strength is the foundation of our defense capability. Ensuring technological superiority over other countries and strengthening the technology base that contributes to the creation of superior defense equipment not only contribute directly to strengthening defense capability but are also of great significance to national security from the perspective of preventing technological ambush.¹ For this reason, countries are devoting their efforts to strengthening their technology base and expending large amounts of research and development funds towards the early operationalization of so-called game-changing technology that will completely transform combat aspects in the future.

See Part I, Chapter 4, Section 1 (Trends Concerning Science and Technology)

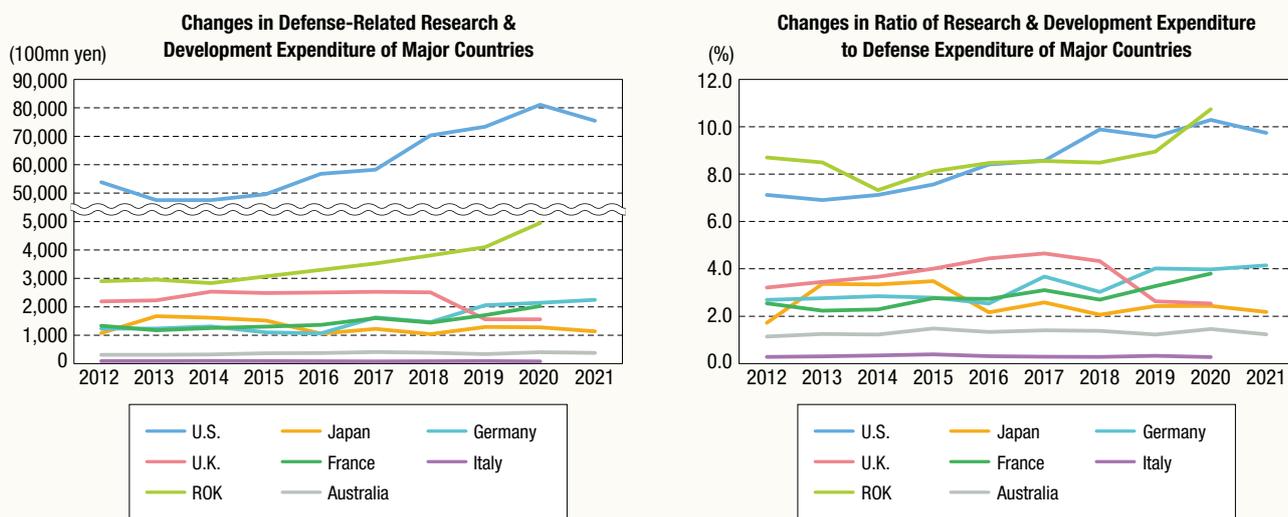
While Japan’s investment in research and development on defense technology has been maintained at a level equivalent to that of the U.K., it is low in comparison to

the U.S. and others. As a nation, it is important for Japan to strategically work on ways to ensure technological superiority and strengthen the technology base from the perspective of creating superior defense equipment and ensuring Japan’s security. Also, the strengthening of the technology base is a pressing issue. Therefore, it is necessary to further promote research and development domestically and develop and strengthen the technology base for the technology areas on which Japan should focus.

In the cases of defense equipment and technology cooperation, such as equipment procurement and international joint development, it is important to maintain the leading role by owning important cutting-edge technology and other important technologies. This requires not only research and development by the MOD, but also the promotion of research and development by both the public and private sectors together.

See Fig. IV-4-2-1 (Current Status of Research & Development Expenditure)

Fig. IV-4-2-1 Current Status of Research & Development Expenditure



Source: "OECD: Main Science and Technology Indicators"

Source: "OECD: Main Science and Technology Indicators"
"SIPRI Military Expenditure Database SIPRI 2022"

Notes: 1. For the calculation of Defense-Related Research & Development Expenditure of Major Countries, the ratio of research & development expenditure to defense expenditure of major countries from the "OECD: Main Science and Technology Indicators" data was used. However Chinese data was not published.
2. The figures are from statistics of the OECD. Special attention is needed when comparing various countries only with this data, because their definitions may vary in each country.

¹ An event that causes a dramatic change in the security environment due to unexpected technological progress in another country. The 1957 Sputnik crisis, in which the then-Soviet Union delivered a huge blow to the United States by successfully launching the first human-made satellite, is one such example.

2 Defense Technology Strategy and Related Documents

For the purpose of ensuring Japan's technological superiority, inventing as well as delivering advanced equipment in an effective and efficient manner, and dealing with various policy issues pertaining to defense and civilian technologies, taking account of the National Security Strategy, the MOD formulated the Defense Technology Strategy in 2016, which presented the specific direction for various measures that should be addressed strategically. Based on this strategy, the MOD promotes various measures.

1 Outline of Defense Technology Strategy

The following is an outline of Japan's defense technology strategy.

(1) MOD Technology Policy Objectives

The following two objectives of the MOD technology policy are designed to strengthen the technical capabilities, which serve as the foundation of Japan's defense capabilities, to make the foundation more robust:

- (i) Ensuring technical superiority
- (ii) Delivering superior defense equipment through effective and efficient research and development

(2) Specific Measures to be Promoted

The following three measures are promoted to achieve the objectives as mentioned above.

(i) Grasping Technological Information

With regard to various scientific technologies that support defense technologies, the MOD grasps the current situation and trends both in and outside of Japan, including dual-use technology² in the public and private sectors and cutting-edge scientific technology. In addition, the MOD develops and publishes the Medium- to Long-Term Defense Technology Outlook (see Paragraph 2 below) to identify advanced technology fields, which have the potential to become game changers.

(ii) Development of Technologies

The MOD will promote research and development based on the "Research and Development Vision"

(see Paragraph 3 below). At the same time, the MOD also promotes research and development that serve as the foundation of defense force building, technology exchange with relevant domestic/overseas agencies, the "Innovative Science & Technology Initiative for Security" (see 4-2) and intermediary research on advanced technologies to apply the results of the initiative to equipment, etc.

(iii) Protection of Technologies

The MOD implements technology control for proper technology transfer to prevent situations in which Japan's technology leaks without the country's intention, which would undermine the maintenance of peace and security in the international community or the ensuring of Japan's technological superiority. The MOD also establishes intellectual property management taking into account the transfer of defense equipment and promotes the utilization of intellectual property.

2 Medium- to Long-Term Defense Technology Outlook

The Medium- to Long-Term Defense Technology Outlook presents an outlook of the technologies that can be applied to equipment expected to be established in roughly the next 20 years, and indicates technology fields that need to be developed in order to ensure Japan's technological superiority. It is expected that utilizing this Outlook will facilitate the integration of superior civilian advanced technologies and the development of technologies outside of the MOD aimed at defense equipment applications. The MOD now particularly aims to take a more strategic approach to important technologies, including technologies pertaining to new domains and other potentially game-changing cutting-edge technologies such as AI.

3 Research and Development (R&D) Vision

The "Research and Development (R&D) Vision" presents principles on R&D, technological challenges, and roadmaps on R&D of the technologies required for our future defense capability for the purpose of

² Technology that can be used for both civilian and defense purposes

conducting advanced R&D systematically from a mid-to-long term viewpoint.

The MOD publishes R&D Vision, and shares them with the defense industry, with the aim of increasing predictability for relevant companies, promoting prior investment, and realizing more effective and efficient research and development by maximally exploiting the

investment. So far, the MOD has published the “R&D Vision on the Future Fighter Aircraft” (2010), and the “R&D Vision on Future Unmanned Equipment: Focusing on Unmanned Aerial Vehicle” (2016), and the “Research and Development (R&D) Vision-Toward Realization of the Multi-Domain Defense Force and Beyond” (2019).

3 Initiatives for Research and Development

1 Strengthening the Research and Development System

In recent years, civilian technologies have made remarkable progress, and it is believed that these advanced technologies could revolutionize the future of warfare. The U.S., China and other countries are competing with one another to invest heavily in cultivating an array of civilian technologies, which will likely result in not only economic competitiveness but also advantages in terms of security. In addition, technologies, particularly advanced technologies, have the potential to be utilized across a variety of fields. For these reasons, it can be said that it is becoming increasingly difficult to divide technologies into defense

use or civilian use and segment civilian technologies that can also be used for defense applications under the concept of “dual use,” which has been the conventional line of thought. The world is moving into an era in which all advanced civilian technologies can be used for security purposes, including defense, and should be regarded as such. By focusing on the technologies that our nation possesses across a wide range of fields and by advancing and utilizing these technologies, Japan will be able to create superior defense equipment.

In order to strengthen the research and development system for advanced technologies, the Future Capabilities Development Center was established in FY2021 under the Acquisition, Technology & Logistics Agency to conduct research and development that leads



REFERENCE: Research and Development Vision (electromagnetic domain initiatives)

URL: https://www.mod.go.jp/atla/soubiseisaku/vision/rd_vision_kaisetsuR0203_01.pdf



REFERENCE: Research and Development Vision (wide-area continuous vigilance monitoring including space)

URL: https://www.mod.go.jp/atla/soubiseisaku/vision/rd_vision_kaisetsuR0203_02.pdf



REFERENCE: Research and Development Vision (cyber defense initiatives)

URL: https://www.mod.go.jp/atla/soubiseisaku/vision/rd_vision_kaisetsuR0203_03.pdf



REFERENCE: Research and Development Vision (underwater defense initiatives)

URL: https://www.mod.go.jp/atla/soubiseisaku/vision/rd_vision_kaisetsuR0203_04.pdf



REFERENCE: Research and Development Vision (stand-off defense capabilities initiatives)

URL: https://www.mod.go.jp/atla/soubiseisaku/vision/rd_vision_kaisetsuR0203_05.pdf

to the creation of new fields and functions that cut across existing fields that surpass existing defense equipment from the utilization of the results of advanced basic research to the production of actual defense equipment. In April 2021, a technology think tank function was also established in the Acquisition, Technology and Logistics Agency, led by the Agency's researchers (technical officers in research positions) and comprised of front-line private-sector researchers (special research officers) with expertise in cutting-edge technology. The main mission of this function is to research and analyze technologies that will be important to the future of Japan's defense, and to devise new methods of fighting

and game-changing technologies. This new initiative will be done through collaboration between the public and private sectors, in which technical officers in research positions will identify the ways of future warfare and the technologies needed to achieve them, and special research officers will research the technologies and provide instruction. The Technology Collaboration Support Division, which promotes the application of technical outcomes from advanced research conducted by universities, private companies, national research institutes, etc. was also newly established. In addition, in September of the same year, the ATLA established a new test and evaluation facility as the "IWAKUNI

Column

Regarding the establishment of the IWAKUNI Maritime Environment Test & Evaluation Satellite (IMETS) at the Naval Systems Research Center

Japan is a maritime nation surrounded by sea on all sides. The research and development of unmanned underwater vehicles as an advanced form of equipment that could potentially be a game-changer in terms of completely altering the future of warfare is important.

Since unmanned underwater vehicles would be operated in a multitude of diverse environments, research and development requires efficient and effective testing and evaluations that take into consideration how these vehicles respond to many different environments. Accordingly, IMETS was installed at the Naval Systems Research Center in September 2021, making it possible to conduct high-level testing and evaluations using large water tanks and equipment capable of accurately simulating underwater acoustic environments. The testing and evaluations conducted at IMETS enable researchers to supplement other testing and evaluations conducted in diverse maritime environments and on actual sea surfaces that are subject to many constraints.

In addition, IMETS is also part of the transfer of government-related organizations to regional areas, a regional revitalization measure implemented by the government. Testing facilities will be used in many different ways, such as research cooperation



through a collaboration between industry, government, and academia, which includes research and development into technologies related to underwater robots in civilian fields.

IMETS will contribute to strengthening the foundation of technologies related to unmanned underwater vehicles in Japan, including in civilian fields, as well as defense fields, as an important base for research and development into unmanned underwater vehicles.



MOVIE: Acquisition, Technology & Logistics Agency Naval Systems Research Center PR Video

URL: <https://youtu.be/yCTda2MENYU>



MOVIE: Acquisition, Technology & Logistics Agency Naval Systems Research Center PR Video

URL: <https://www.youtube.com/watch?v=t3hfUZ3LvhQ>



Maritime Environment Test & Evaluation Satellite” of the Naval Systems Research Center in accordance with the provisions of the “Basic Policy on the Relocation of Governmental Organizations”³ to efficiently and effectively conduct research and development on unmanned underwater vehicles (UUVs), etc., utilizing advanced civilian technologies. The facility is also expected to conduct collaborative research with the civilian sector, improve technologies related to the domestic underwater unmanned vehicle field, revitalize the local economy, etc.

2 Shortening Research and Development

Technological progress is about to fundamentally change how security should be managed, and major states endeavor to develop weapons that leverage cutting-edge technologies. The MOD is also working to greatly shorten research and development periods by focusing research in promising technical fields and rationalizing the research and development process in order to ensure technological superiority in strategically important equipment and technology fields such as technologies in new domains and potentially game-changing cutting-edge technologies such as AI, and other important technologies.

Specifically, the MOD has been making efforts to greatly shorten the research and development periods of a Hyper Velocity Gliding Projectile Intended for the Defense of Remote Islands, UUVs with convertible mission modules, standoff electronic warfare aircraft and other equipment through the use of initiatives such as block approach, in which the research and development of equipment is conducted step by step, and modularization. In addition, the MOD is working to improve efficiency in testing and evaluation for research and development into future submarines by utilizing test-bed submarine that are type-modified versions of existing submarines. New technologies such as AI and lasers are the subject of demonstrations by the Acquisition, Technology & Logistics Agency to enable users to imagine how these technologies will be used, while a concrete image of future equipment is being developed by collecting information on their technical feasibility from private companies and other parties at an early stage and fully analyzing the information.

The MOD has also been promoting the rapid practical application of technologies by utilizing cutting-edge civilian technologies with short innovation cycles, such as AI technology and ICT, and aligning with operational needs, as the Programs for Rapid Practical Application of New Technologies, since FY2017.

3 Development of the Future Fighter Aircraft

It is vital that Japan continues to employ superior, state-of-the-art fighters in order to ensure air superiority into the future for the defense of our nation. To this end, it is important for Japan to take the lead in developing the future fighter aircraft (F-X) that will replace the F-2 fighter scheduled for retirement from around 2035 with a view to international cooperation in order to secure superior air-to-air combat capabilities, as well as to ensure freedom of modification and expandability to enable timely and appropriate capacity enhancing modifications for the next several decades of operation of the F-X. Furthermore, Japan must possess a domestic base capable of securing a large number of active aircraft and ensuring readiness in order to take all possible measures for our nation’s air defense. To achieve this, the MOD concluded a contract with Mitsubishi Heavy Industries, Ltd. in October 2020 as a prime company in charge of integrating the fighter as a whole, and began the development.

In developing the F-X, the MOD has been advancing Japan-led development with necessary support and cooperation from the U.S., such as starting a new research project on data link connectivity with the U.S. Forces’ equipment in 2021 to ensure interoperability between Japan and the U.S. Furthermore, the MOD has continued discussions with the U.S. and the U.K. to pursue the possibility of collaboration on the F-X at a system level such as engine and electronic component (avionics) in order to mitigate development cost and technical risk. In December 2021, Japanese and British defense authorities confirmed their intent to proceed with a joint engine demonstrator programme to begin in January 2022, and decided to conduct joint analysis on the extent of commonality to explore the feasibility of further sub-systems collaboration.

³ Decided at the Advisory Council on Vitalizing Towns, People and Jobs on March 22, 2016

See Part I, Chapter 4, Section 1 (Trends Concerning Science and Technology)

4 Utilization of Advanced Technology

It is important that the MOD invests heavily in technologies that will transform the conventional equipment structure and work to utilize advanced technology in order to ensure technological superiority so that it will be able to create superior defense equipment capable of responding to future changes in

the nature of warfare.

For example, the MOD is advancing research and development of cutting-edge technologies that have the potential to become game changers, such as artificial intelligence (AI)-equipped unmanned combat support unmanned aerial vehicle, high-power microwave (HPM) irradiation technology capable of dealing with multiple drones, and high-power lasers and railguns that are capable of responding to airborne threats more quickly and at lower cost.

4 Active Utilization of Civilian Technology

1 Strengthening Technology Cooperation with Relevant Domestic and Overseas Entities and Collaboration with Relevant Ministries and Agencies

The ATLA and domestic research institutions, such as the National Research and Development Agencies, proactively engage in research collaborations and technological information exchanges in order to ensure that advanced civilian technology is incorporated and efficient research and development is conducted.

Domestically, in order to create excellent defense equipment through the utilization of advanced technologies and efficiently and effectively conduct R&D, the MOD has been collaborating closely with the Council for Science, Technology and Innovation (CSTI)⁴ and other relevant ministries and agencies on a regular basis based on the Integrated Innovation Strategy 2021 (Cabinet Decision on June 18, 2021). The ministry also actively participates in the Council for Integrated Innovation Strategy⁵ established for its promotion in order to further enhance collaboration with relevant ministries and agencies, national research and development agencies, industry, universities, and other parties. Furthermore, the MOD will proactively engage in efforts that will allow it to utilize the results of both government and private sector research and development in defense areas, and further strengthen

human exchange with research institutes, etc. in order to understand trends of civilian technologies for complementary and synergistic improvement of technological capabilities.

See Fig. IV-4-2-2 (Major Technological Cooperation with National Research and Development Agencies, etc.)

As international cooperative activities, the MOD will continue Japan-U.S. joint research and engineer exchanges, and continuously consider diverse possibilities through continued opinion exchange with other countries at various opportunities while closely observing their technology strategies, etc.

Fig. IV-4-2-2

Major Technological Cooperation with National Research and Development Agencies, etc.

No.	Partner	Primary fields/technologies of cooperation
①	Japan Aerospace Exploration Agency (JAXA)	Aerospace field <ul style="list-style-type: none"> ● Dual-band infrared sensor ● Hypersonic flight technology ● Ultra-wideband electromagnetic waves measurement technology
②	National Institute of Information and Communications Technology (NICT)	Electronics, information and communications field <ul style="list-style-type: none"> ● Cybersecurity technology ● Quantum cryptography and communication
③	Japan Agency for Marine-Earth Science and Technology (JAMSTEC)	Marine field <ul style="list-style-type: none"> ● Marine drone system ● Underwater mobile communication
④	Japan Coast Guard	<ul style="list-style-type: none"> ● High frequency surface-wave radar

⁴ One of the important policy meetings aimed at the planning and general coordination of comprehensive and basic science & technology innovation policies under the leadership of the Prime Minister and ministers in charge of Science & Technology policy, at a level higher than individual ministries.

⁵ Meeting of all ministers of state under the leadership of the Chief Cabinet Secretary for checking, sorting, and cross-sectoral and substantial coordination, and promotion of items that are included in the Integrated Innovation Strategy 2019 (Cabinet Decision on June 21, 2019) and that require coordination among the control towers related to innovation

2 Identifying and Developing Innovative Technologies and Their Seeds

In FY2015, the MOD launched a competitive research funding program called “Innovative Science & Technology Initiative for Security” to publicly seek and commission basic research on advanced civilian technologies, which are expected to contribute to future research and development in defense areas. A total of 118 research projects were awarded⁶ by FY2021. This program was expanded in FY2017 in order to enable the awarding of larger-scale and longer-term research projects, and it will continue to run on a similar scale in FY2022 (total budget of about 10.1 billion yen).

In the basic research areas, free thinking of researchers leads to innovative and creative results. For this reason, it is necessary to assign maximum value to freedom of research when sponsoring research, so that, for example, researchers will be able to publish all of their research results to have a wide range of academic discussions. Hence, in this program, the MOD will not intervene in research, restrict contractors’ publication of research results, or designate research results as confidential, never providing any confidential data to researchers. In actuality, some research results have already been published through oral presentations, publications, etc.

Active utilization of advanced civilian technology through such programs is not only essential for securing the lives and peaceful livelihood of the Japanese people into the future, but is also beneficial

for the development of Japan’s science, technology and innovation in non-defense areas as well, similar to how investment in innovative technology by the Defense Advanced Research Projects Agency (DARPA) of the United States facilitated advances in science and technology as a whole including civilian technology, such as the development of the Internet and GPS. From this perspective, the MOD intends to promote relevant measures and strives to raise awareness of this program that contributes to ensuring the freedom of study and its sound development.

Bridging Research was launched in FY2020 to expedite the identification and development of promising, advanced technologies from the results of basic research under the Innovative Science & Technology Initiative for Security and other sources, enhance their readiness level, and apply them to the research and development of equipment. Bridging Research will continue to be conducted aggressively in FY2022 with the aim of helping to generate equipment that will be gamechangers in the future.

In addition, in order to accelerate the research and development of equipment, the MOD began “Efforts to Facilitate the Early Practical Use of Game-Changers” starting in FY2022 as an initiative to commission private companies to conduct research and improve their advanced technologies to the point where they can be used in the research and development of equipment.

 See Fig. IV-4-2-3 (FY2021 Awarded Research Projects for the “Innovative Science & Technology Initiative for Security” Program)

⁶ For the research projects awarded under the Innovative Science & Technology Initiative for Security (a competitive research funding program), see the ATLA website (<https://www.mod.go.jp/atla/funding.html>).

Fig. IV-4-2-3

FY2021 Awarded Research Projects for the “Innovative Science & Technology Initiative for Security” Program

	Research Title	Brief Summary	Representative Institution for the Project
Large-scale research projects (Type S): Nine projects	Mechanisms of specific deformation behavior of ultra-high strength metals having heterogeneous-nano structure	Origin of mechanical properties as well as their controlling factors of the heterogeneous-nanostructured alloys, which are composed of a newly found structure, are investigated in this project. From the above attained results, the most suitable thermomechanical process for the utilization of the ultrahigh-strength heterogeneous-nanostructured alloys and the guide for material design will be discussed.	Toyohashi University of Technology
	Mechanism elucidation for laser direct joint of difficult-to-adhesive Composite materials to light metals and its basic characteristic evaluation	The objective of this research is to elucidate the direct joining mechanism between difficult-to-adhere composites and light metals with laser through state-of-the-art observation, analysis, and numerical analysis. We aim to achieve joint strength and reliability that can be utilized in space and deep sea, by deriving the dominant factors of joining from the peeling process occurring at the joint interface, and control these factors.	Japan Agency for Marine-Earth Science and Technology (national research and development agency)
	High Resilience Visual Inertial SLAM*1 System and Its Application for Information Fusion VR Image Synthesis	This research will be applied for the generation, fusion, and display of digital spaces such as Virtual Reality (VR) and Augmented Reality (AR). The goal of this research is firstly to develop and demonstrate high-resilient visual inertial SLAM system for real use in the actual environments where sudden brightness changes and moving objects are inevitably observed. As its application, it is also aimed to synthesis an arbitrary-viewpoint and high-resolution information fusion VR image from the obtained SLAM map and original images.	IVIS inc.
	Elucidating brain mechanisms of metacognition and constructing daily training environment	Our purpose is to establish BMI*2 technology to improve metacognitive ability, defined as the ability to monitor and control one's own cognitive activities such as perception and thinking. For this purpose, we will conduct basic research to construct artificial agents with metacognitive ability and to elucidate the corresponding brain mechanisms using fMRI*3.	Advanced Telecommunications Research Institute International
	Precision Human Digital-Twins System	The objective of this project is to develop a human digital-twins system that recapitulates, senses and regulates molecular (nano-scale) to cellular (micro-scale) events inside the human body in real-time. Towards this goal, we conduct basic science research developing digital-twins technologies, nanomachines, an implantable milli-scale implantable device and their integrated multiplex sensor/regulator system.	Advanced Telecommunications Research Institute International
	Research on Ultra-Miniature Navigation-Grade IMU*4 and Fundamental Experiment	This research aims to develop an ultra-miniature high-dynamic-range high-precision IMU, based on two types of innovative MEMS*5 sensors, for high-accuracy autonomous navigation without GPS toward the growing applications such as drone and self-driving car in the near future.	Toshiba Corporation
	Development of core technology including adhesive boned joining methods for maritime use CFRP*6 blades	In this study, we evaluate the bond and interface properties of the composite-metal adhesive joint structure during long-term in seawater, and elucidate the degradation and fracture mechanisms of the bonded parts. We also aim to develop adhesives and primers that have optimal strength in adhesive bonding.	Nakashima Propeller Co., Ltd.
	Research on a novel infrared detector with optimized nanotube network	This study examines the development of a novel infrared detector using semiconducting carbon nanotubes and negative thermal expansion materials. The constituent elements and their preparation methods will be optimized with materials informatics for achieving high infrared detection sensitivity and the effectiveness of printable infrared sensors fabricated using this technique will be verified.	NEC Corporation
Small-scale research projects (Type A/C): 14 projects	Development of ultra-high-sensitivity 3D electromagnetic field microscopy for environmentally controlled observations	This research aims to realize technologies for analyzing structures and electromagnetic fields during reactions at the atomic level by developing electron microscopy for ultra-high-sensitivity electromagnetic field measurement. These realized technologies will be used for elucidating the mechanisms of the reactions under a real reactive environment containing gases or liquids, and the mechanisms could be the keys to creating high-efficiency and low-cost catalysts and electrodes used in fuel cell or artificial photosynthesis.	Hitachi, Ltd.
	Development of operando*7 Nuclear Magnetic Resonance Analysis for Next-Generation Secondary Batteries	For this research, operando nuclear magnetic resonance analysis is developed to elucidate lithium metal (dendrite) deposition in next-generation secondary batteries such as all solid-state batteries. Detailed investigation of the metal deposition, which causes failure and thermal runaway of batteries, is undertaken to produce safer next-generation batteries that provide high speed charge/discharge.	Okayama University
	Brain function analysis using ultra-wide imaging and real-time optical	In this study, we aim to develop a macroscopic system for manipulating neural activity based on spatiotemporal patterns of brain activity measured in real-time to analyze the mechanisms underlying motor intention formation and motor control.	RIKEN (national research and development agency)
	Study of long-distance quantum sensing technologies for sea bottom and underground	Magnetic field and temperature can be measured by quantum sensing. For quantum sensing in which the location of a sensor is far away from its measurement system, the decay of photons and high frequency waves is issue. Manipulating electron spins of spin defects in SiC*8, we will develop quantum sensing technologies with high stability and high sensitivity in such a situation.	National Institutes for Quantum Science and Technology (national research and development agency)
	Accurately identification of buried objects by X-ray photon counting detection	In this study, we will develop the technology for a novel searching system that can accurately identify buried objects by detecting the unique X-ray energy spectrum of materials using a X-ray photon-counting method.	ANSeeN Inc.
	Development of novel functional materials by in-situ alloying	DED*9 is one of the additive manufacturing technologies that characterized by the formation of molten pool and following rapid solidification. This research aims to develop new functional materials by DED, feeding two or more filler metals into molten pool and alloying in-situ. In this study, we will challenge the development of lead-free sliding materials.	Kawasaki Heavy Industries Ltd.
	Development of hemispherical resonance gyro by 3 dimensional MEMS process	In this study, we will develop 3 dimensional MEMS process for fabricate a key device of autonomous inertial navigation systems without satellite signals. We aim to realize a high-precision, compact and inexpensive hemispherical resonance gyroscope.	TOKYO KEIKI INC.
	Electrode-electrolyte nanostructure interface design for development of all-solid-state batteries	The purpose of this research is to establish design guidelines for fabricating high-performance solid-state batteries. The ion-conduction mechanism inside electrode and solid electrolyte and the origin of the resistance at the electrode-electrolyte interface will be elucidated. Further, basic research will be conducted into the optimization of processing conditions to enable nanostructure control of interfaces in all-solid-state batteries.	Japan Fine Ceramics Center
	Building a foundation for innovative thermal barrier coating systems with advanced thermal management	Core technology for innovative thermal barrier coating systems with excellent heat-shielding performance in high-temperature combustion environments will be developed by improving the radiant heat reflection and lowering the thermal conductivity of the top coat to ultra-low levels.	Japan Fine Ceramics Center
	Interface design of high thermal conductivity sintered alloys consisting of graphene-coated aluminum powder	In this study, we aim to create a graphene-dispersed aluminum alloy with significantly improved thermal conductivity and strength as a structural material by clarifying the state of graphene at the interface after the sintering under vacuum discharge of graphene oxide coated on aluminum powder.	Utsunomiya University
	Biomimetic Assist Suit for Uneven Terrain	This study focuses on the development of design principals of semi-active, light weight and energy efficient assistive suits with functional materials. Target joints of this study are knees and ankles. Our new assistive suits will naturally follow the joint motions and support them without undesirable resistances.	Oita University
	Development of high specification composite propellant using high energetic materials	This study aimed at proposing a novel solid rocket propulsion system using high energy materials and its operation demonstration. The aim is to improve the performance and functionality of solid propellants for rockets. We determined the composition of debris-free solid propellants for the space environment and searched for combustion catalysts that control the burning rate.	Chiba Institute of Technology
	Development of the ship maneuvering simulator on HMD*10 utilizing the numerical simulation and the technology of model test in wave	In order to prevent ship accidents in storms this research aims to establish technology to accurately simulate the ship response in waves and to develop a ship maneuvering simulator using HMD that can visually and physically simulate the actual sea state, so that these technologies can be utilized for ship maneuvering training in actual waves.	National Institute of Maritime, Port and Aviation Technology (national research and development agency)
	Precise measurement of electronic states of gases in reaction environment	Employing X-ray Compton scattering*11, we aim to establish a new technique to visualize combustion processes in fuel engines and gas turbines. The technique allows us to provide in-situ data, which were unavailable in many cases, and to contribute to designing a combustion chamber with clean emission gases.	National Institute for Materials Science (national research and development agency)
A study of polarized skylight navigation inspired by insect vision	Inspired by insect vision ability to sense skylight polarization, this study aims to establish polarized skylight navigation system applicable to vehicles under GPS-denied environments by combining inertial navigation and polarization pattern-based positioning.	Kawasaki Heavy Industries Ltd.	

*1 SLAM: Simultaneous localization and mapping
 *2 BMI: Brain-machine interface
 *3 fMRI: functional magnetic resonance imaging
 *4 IMU: Inertial measurement unit
 *5 MEMS: Micro-electro-mechanical systems
 *6 CFRP: Carbon fiber reinforced plastics

*7 Operando (observation): Observing on-location in an actual reaction or operating environment.
 *8 SiC: Silicon Carbide
 *9 DED: Directed energy deposition
 *10 HMD: Head mounted display
 *11 X-ray Compton scattering: A phenomenon in which X-rays and electrons are bounced off and scattered when an object is irradiated with X-rays.

Column

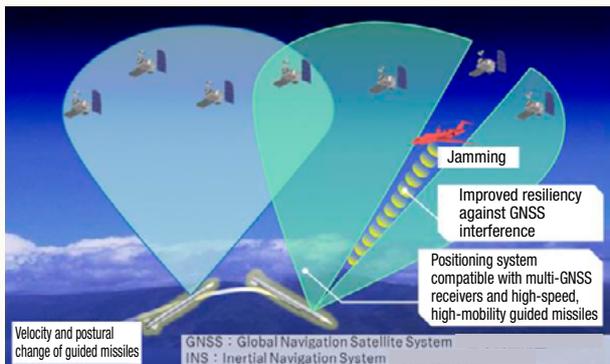
Regarding the strengthening of research on advanced technologies

In recent years state-of-the-art technologies, such as artificial intelligence (AI) and quantum technology, have been making noticeable progress in the civilian domain. It is considered that these technologies not only have an impact on the power balance between nations but also can transform future warfare.

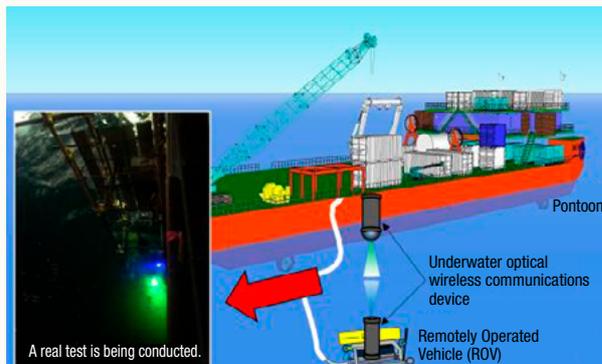
To deal with these changes, the Ministry of Defense (the MOD) considers it necessary not only to significantly strengthen our existing defense forces but also to actively incorporate civilian state-of-the-art technologies that can be the so-called game-changer into the defense domain. To this end, it is important to quantitatively analyze the effects of those technologies on equipment, to discern vital state-of-the-art technologies and to develop and introduce those technologies.

In response to this situation, ATLA has been collecting information actively through opinion exchanges between with ATLA's technical officials engaging in research and with frontline researchers in various technological fields about innovative and

germinating technologies possessed by universities, private companies, and national research institutes. ATLA has also been, through the "Innovative Science & Technology Initiative for Security," consigning research to outside research organizations to develop advanced civilian technologies. Furthermore, since FY2020, ATLA's research centers have been proceeding with "bridging," which builds a bridge to research and development of equipment by raising the level of technological maturity of promising advanced technologies. In addition, since FY2022, ATLA has been commissioning private companies to conduct a series of examinations from design to provisional production to test evaluation regarding peripheral technologies that can be acquired by private companies' initiative and are necessary for equipment that can be a game-changer as "Efforts to Facilitate the Early Practical Use of Game-Changers" in an effort to shorten the period of research and development.



Example of Efforts to Facilitate the Early Practical Use of Game-Changers (GNSS/INS hybrid guidance and navigation system)



A test in bridging research (a test simulating optical wireless communication between unmanned surface vehicles (USVs) and unmanned underwater vehicles(UUVs))

Section 3

Optimizing Equipment Procurement

1 Project Management throughout Equipment Life Cycle

1 Acquisition of Defense Equipment through Focused Project Management

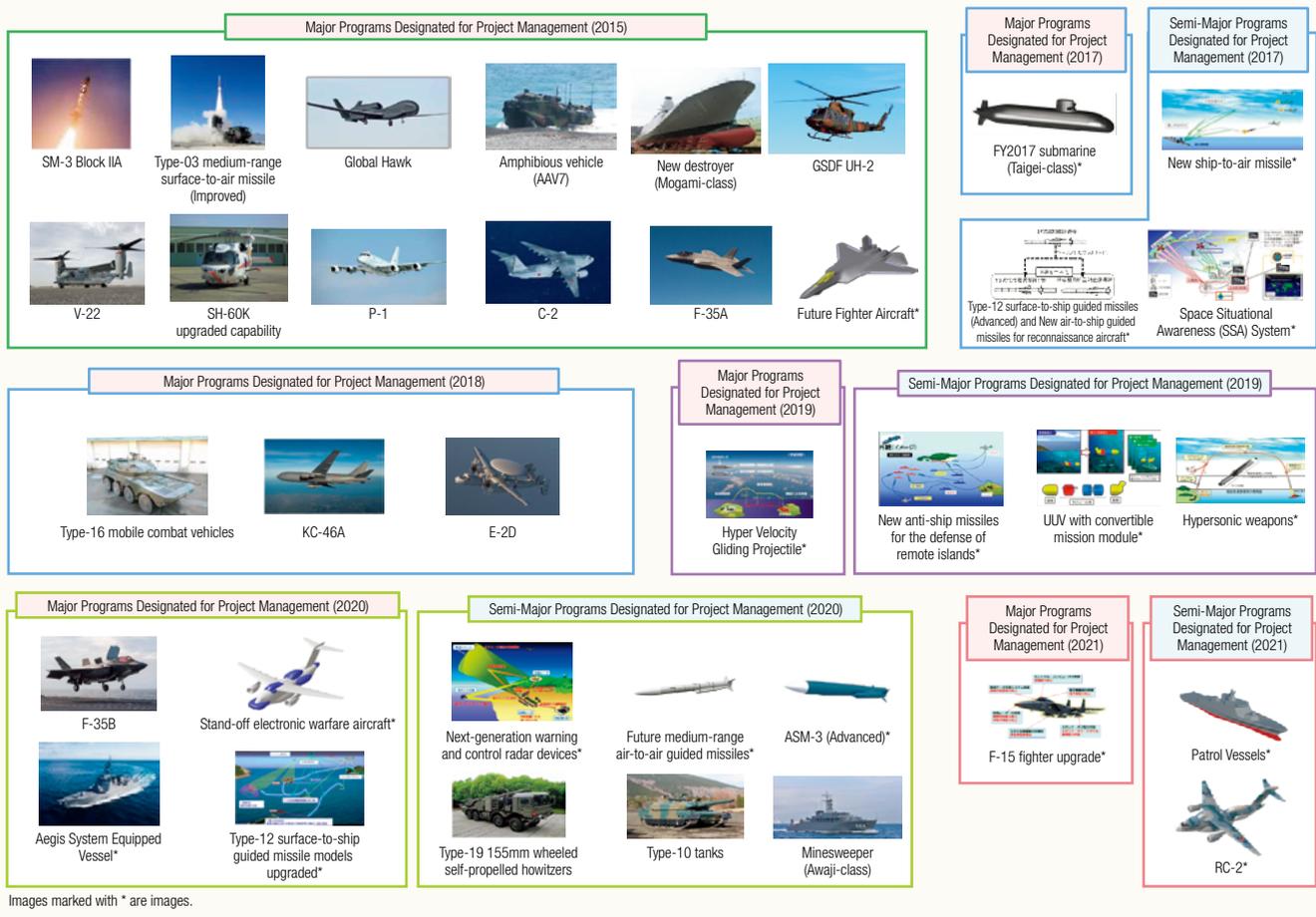
As defense equipment is becoming more sophisticated and complex, its entire life cycle (concept study, research and development, mass production, deployment, operation and maintenance) cost has a tendency to increase in recent years. It has become extremely important to streamline acquisition throughout the life cycle of equipment and to establish a systematic management to realize the streamlining in order to efficiently acquire equipment of assured quality at appropriate cost in a required timeline as planned.

Therefore, since the establishment of ATLA in October 2015, the Department of Project Management in ATLA undertakes project management throughout the life cycle of equipment upon selecting important equipment, and promotes efforts to realize the optimized equipment acquisition.

Specifically, the MOD has selected 22 items for major programs designated for project management and 14 items for semi-major programs for project management¹ as of the end of March 2022. For major programs designated for project management, the MOD designates a Project Manager (PM) dedicated to each specific major program, after which project management

Fig. IV-4-3-1

Major Programs Designated for Project Management and Semi-Major Programs Designated for Project Management



Images marked with * are images.

¹ A semi-major program is an acquisition program of specific equipment with a limited application of program management without the designation of PM and IPT, focusing on risks in functions, performance, costs, schedules and other risk factors as in the case of major programs designated for project management.

for that program is conducted by an Integrated Project Team (IPT), which is composed of officials from relevant divisions within the MOD.

So far (as of the end of March 2022), for each of the 36 items that have been selected for major and semi-major programs, the MOD has formulated an Acquisition Strategy and an Acquisition Plan (hereinafter referred to as “Designated Item Plans”), which specify the basic matters necessary to systematically implement project management, such as the purpose of the acquisition program, acquisition policy, and life cycle cost.

Furthermore, in principle, ATLA annually confirms the implementation status of the Designated Item Plans, and endeavors to promote appropriate project management reflecting the latest situation by conducting analysis and evaluation, and thus reviews the Designated Item Plans. In August 2021, analysis and evaluation of the acquisition programs were implemented for the 31 items for which the Designated Item Plans had been developed.

 See Fig. IV-4-3-1 (Major Programs Designated for Project Management and Semi-Major Programs Designated for Project Management)

2 Initiatives to Promote and Strengthen Project Management

(1) Past Initiatives

The following initiatives have been implemented to promote and strengthen project management.

a. Cost and Schedule Management Using WBS

For certain kinds of equipment, etc., produced in Japan, the MOD promotes the introduction of a management method to visualize the progress of work and cost generated by component (Work Breakdown Structure [WBS])². Specifically, the MOD endeavors to manage costs and schedules to detect the signs of cost increase and schedule delays early so that swift measures can be

taken by such means as utilizing an incentivized risk-sharing management contract system from April 2020 (see 2.3).

b. Method for More Accurate Cost Estimate

Life cycle cost has been estimated based on actual cost data of similar equipment developed or introduced in the past. However, as a larger amount of cost data is needed for a more accurate estimate, the MOD promotes the establishment of a cost database by collecting cost data and accumulating them into a database.

c. Accumulation and Development of Expertise

For further improving the management skills of PMs and enhancing human resources among those who engage in project management, the MOD provides opportunities to study project management methods from overseas and the private sector on a regular basis.

(2) Future Initiatives

In order to further promote effective and efficient equipment acquisition, the MOD needs to enhance the effectiveness and flexibility of project management throughout equipment life cycles. To this end, under the Mid-Term Defense Program (MTDP), the MOD/SDF will take new initiatives, including incorporating successful examples in the civilian sector into the manufacture of defense equipment, actively adopting the competitive bidding method and other contracting methods that contribute to the utilization of private sector knowledge and expertise, and tightening cost controls.

In this regard, the MOD will expand the items subject to project management and strive to adjust the standards for the specifications and the review of project plans with consideration of life cycle costs. Furthermore, for more efficient acquisition, during the equipment selection phase, the MOD will implement thorough life cycle cost estimation, and analysis of alternatives, and secure binding obligations against company principals.

2 Improving the Contract System and Other Related Matters

1 Reviewing Acquisition Systems

For the purpose of promoting acquisition reform, which is

a prompt response to swiftly changing surroundings, the MOD has been holding meetings of the Comprehensive Acquisition Reform Committee since 2007, in addition

² WBS is a hierarchical structure used to practice project management that systematically divides the project into manageable units, in which the schedule and cost of each deliverable (components and services) are allocated.

to the Contractual Systems Study Groups held since 2010 to review acquisition systems. Since FY2016, a special research officer system³ has been adopted in order to surely bring the review results to fruition.

2 Long-Term Contracts, etc.

The production of defense equipment requires a significant amount of time. Therefore, if a certain amount is to be procured in bulk, a contract for more than five years is needed in many cases. With regard to defense equipment and services, economies of scale⁴ tend not to work mainly due to the following reasons: (1) the MOD is the only customer; and (2) companies that provide such defense equipment, etc., are limited. In addition, it is difficult for companies to systematically move forward with their businesses with a high degree of predictability, which is peculiar to the defense industry.

For these reasons, the upper limit of acts that incur national debt prescribed in the Public Finance Act as within five years in principle was changed to within ten years for specific equipment through the enactment of the Long-term Contract Act.⁵ The introduction of this change regarding long-term contracts will make stable procurement possible, leading to the realization of the systematic improvement of defense capability. At the same time, for companies, given that the procurement amount will be assured, the systematic use of personnel and equipment, as well as cost reductions due to bulk orders, will be made possible.

 See Part II, Chapter 4, Section 2-3 (Initiatives for Increasing the Efficiency of Procurement)

In addition, by realizing longer-term multiple-year contracts utilizing the Private Finance Initiative (PFI) Act,⁶ the planned acquisition and execution of budgets is achieved through the standardization of investment amounts of the national expenditure, and certain benefits are obtained, such as cutting equipment procurement costs, by reducing risks for those taking orders and by promoting the entry of new suppliers. As projects using the PFI Act, the MOD launched the “project

of development and operation of X-band satellite communications” in January 2013 and the “project of operation and management of private ships” in March 2016.

In addition, regarding procurement of certain equipment with which little competitiveness can be expected due to its characteristics, and companies that work on cost reduction using the MOD’s programs, the MOD promotes limited tendering contracts while ensuring transparency and fairness as well as clarifying and putting the subject into patterns, from the perspective of the implementation of smooth and efficient procurement, and the enhancement of the company’s predictability.

Specifically, in acquiring new types of destroyers (FFM),⁷ the MOD adopted a procurement method in February 2017 that selects the party that has made the best proposal with respect to the MOD’s requirements as the procurement counterparty, with the runner-up also involved in designing and building facilities as a subcontractor. This made it possible to acquire new types of destroyers (FFM) efficiently equipped with the necessary functions and to maintain and strengthen the construction technology base. The MOD concluded a proposal agreement in April 2017 and decided on a procurement counterparty and a subcontractor in August 2017.

3 Decrease Procurement Cost and Improve Companies’ Incentives to Reduce Cost

With regard to the procurement of defense equipment, the cost is tending to increase because a large variety of equipment has no market price. Based on those characteristics, it is necessary to achieve both the reduction of procurement cost and improvement of companies’ incentives to reduce cost simultaneously.

To achieve this, the ATLA has been applying the incentivized risk-sharing management contract system to the F-X project and the stand-off electronic warfare

³ This is a system to conduct research, which contributes to the acquisition system of defense equipment, by inviting experts, such as associate professors from different universities specializing in the areas of concern, in order to review and reconsider an effective procurement system, based not only on the viewpoints of the MOD personnel but also on theories that have been proposed in the field of business administration and economics.

⁴ “Economies of scale” refers to the cost advantage that arises with an increased output of a product. For example, costs per unit can be reduced by a bulk purchase of materials.

⁵ “Special Measures Law Concerning the Term of Expenditure Based on the Obligatory Assurance of National Subsidization for Specific Defense Procurement” (enacted in April 2015. An act for its partial revision to extend the effective period by five years was enacted in March 2019.)

⁶ Act on Promotion of Private Finance Initiative

⁷ New destroyers that combine improved multimission capabilities and compact hulls

aircraft project since April 2020.

Under this system, the public and private sectors jointly manage the performance and progress of the contract, manage the cost and minimize the risk of cost overruns and schedule delays. When the cost is reduced, part of the reduction is awarded to the contractor. This system is aimed at reducing the price while incentivizing

the contractor to reduce the cost.

In addition, a system to provide incentives for cost reductions has also been implemented since April 2020 in order to evaluate companies' own cost reduction efforts. The expansion of the scope of application and other approaches to encouraging such efforts have been continuously considered.

3 Initiatives Aimed at Increasing the Efficiency of Procurement, and Other Related Initiatives

1 Effective and Efficient Maintenance and Replenishment

With regard to periodic maintenance of defense equipment, the MOD has been working to improve efficiency by extending the maintenance interval, after making sufficient efforts to ensure safety. Moreover, the MOD is working to expand umbrella contracts such as performance based logistics (PBL)⁸ from the perspective of improving the equipment's operational availability and keeping long-term costs reduced. Furthermore, the MOD is seeking to reduce costs by purchasing two types of C-2 transport aircraft engines in bulk through the FY2021 supplementary budget.

See Part II, Chapter 4, Section 2-3 (Initiatives for Increasing the Efficiency of Procurement)

2 Achieving Further Efficiency in the Acquisition of Defense Equipment

When acquiring defense equipment, the MOD aims to reduce development, acquisition, and maintenance expenses through the development of product families, standardization of equipment specifications, joint procurement of equipment common to multiple SDF services, etc., in addition to a review of the contract system. For example, in the FY2022 annual budget, the MOD expects to be able to reduce the cost of Type-12 surface-to-ship guided missile model prototypes (with improved abilities) by making them capable of being fired from the ground, from warships, and from aircraft.

In addition, the MOD has been facilitating the compilation of a database on the breakdown of

procurement prices and actual price of major equipment in the past. The MOD expects this database to be utilized not only to verify the validity of procurement prices, but also to enhance the accuracy and efficiency of life cycle cost estimation for new equipment.

See Part II, Chapter 4, Section 2-3 (Initiatives for Increasing the Efficiency of Procurement)

3 Efforts to Increase Fairness and Transparency

The MOD implements measures for making contracts more appropriate and strengthening checking functions to promote the enhancement of fairness and transparency in relation to the acquisition of equipment and materials.

As a part of the effort to "make public procurement more appropriate" across the whole government, the MOD continues to carry out the introduction and expansion of a comprehensive evaluation bidding system⁹ and make bidding procedures more efficient. In addition to these, based on reflection on the past, strengthening system investigation, reviewing penalties, ensuring the effectiveness of supervision and inspection, and other measures have steadily been carried out in order to prevent recurrence of such incidents as overcharging and falsified results of equipment testing by defense-related companies in 2012. Through these measures, the MOD strives to surely prevent recurrence of scandals, enhance fairness and transparency, and make contracts more appropriate.

In addition, the ATLA carries out multilayered checks on the contracts it administers through both internal and external checking systems and checks and balances

⁸ Multi-year umbrella contracts for equipment inspections, repairs, and other sustainment and maintenance work with added conditions shortening repair times, ensuring a certain level of inventory, etc. in order to improve equipment availability

⁹ Unlike the automatic bid system, which focuses only on price, this is a system whereby the successful bidder is determined on the basis of a comprehensive evaluation that includes both the price and other elements. This method is adopted when it is appropriate to carry out such procedures as evaluating the technological elements.

within the organization - namely, the ATLA further enhances internal inspections by the inspection and audit department, and through deliberations in the Defense Procurement Council, consisting of external experts, and defense inspection conducted by the Inspector

General's Office of Legal Compliance. Moreover, ATLA has also improved its education department and strives to enhance compliance awareness by providing thorough education pertaining to compliance for ATLA personnel.

4 Promoting Initiative towards Rationalization of Foreign Military Sales (FMS) Procurement

FMS is a form of U.S. security assistance authorized by the Arms Export Control Act (AECA) etc. that may enable the U.S. allies and others to purchase defense equipment and services from the U.S. government. The characteristics of FMS include: (1) pricing is an estimate, (2) payments are made in advance in principle and balanced out after fulfillment, and (3) the delivery date is an estimate. This program allows Japan to procure equipment with a high level of confidentiality that cannot be generally purchased through Direct Commercial Sales and highly capable equipment. Therefore, FMS is critical to strengthen Japan's defense capabilities.

Meanwhile, there are FMS-related challenges, such as late delivery and late case closure. As the FMS procurement amount is hovering at a high level in recent years, the governments of Japan and the U.S. have been actively working together to make improvements in these challenges.

Specifically, the ATLA and Defense Security

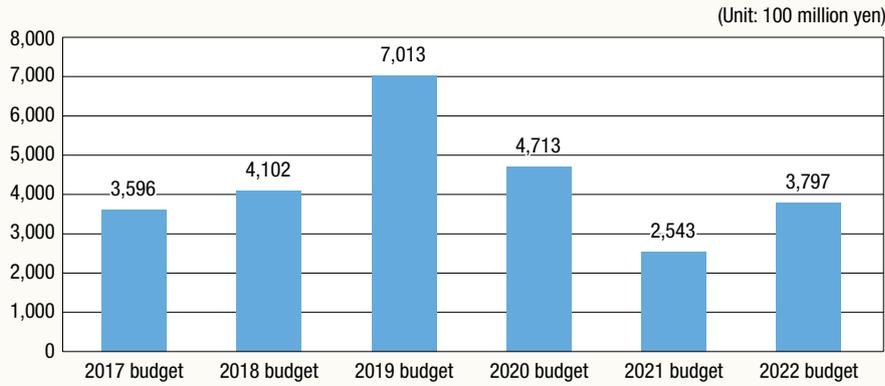
Cooperation Agency (DSCA) have held the Security Cooperation Consultative Meeting (SCCM) to discuss the challenges over FMS procurement, six times since 2016.

At the 6th SCCM held in February 2022, Japan and the U.S. agreed to continue strengthening case management between them in terms of late deliveries and late case closure, and to promote efforts to reduce the number of late deliveries and late case closures.

With regard to transparency in pricing, DSCA also confirmed that it will provide guidance to the relevant organizations in the U.S. Department of Defense on providing cost information and reasons behind price increases. DSCA also confirmed that it will strive to limit price increases for FMS-procured items caused by the spread of COVID-19 and other factors, and improve predictability in terms of prices. The MOD will continue to promote the rationalization of FMS procurement.

 See Fig. IV-4-3-2 (Trends in Amount Budgeted for Equipment, etc. Acquired through FMS (contract basis))

Fig. IV-4-3-2 Trends in Amount Budgeted for Equipment, etc. Acquired through FMS (Contract Basis)



- Major equipment acquired through FMS**
- [Ground Self-Defense Force]
 - V-22 Osprey
 - [Maritime Self-Defense Force]
 - SM-6
 - SM-3 Block IB
 - SM-3 Block IIA
 - [Air Self-Defense Force]
 - F-15 fighter upgrade
 - F-35A
 - F-35B
 - AIM-120 (air-to-air missile)
 - KC-46A (Aerial refueling/transport aircraft)
 - E-2D (Airborne early warning aircraft)
 - Global Hawk

○ [Reference] Representative examples of FMS procurement *FMS amounts



F-35A
[Lockheed Martin]
FY2022 budget: 76.8 billion yen



F-35B
[Lockheed Martin]
FY2022 budget: 51 billion yen



SM-3 Block IIA
[Raytheon]
FY2020 budget: 30.1 billion yen
*Initial parts, etc.



V-22
[Bell Boeing]
FY2018 budget: 9.8 billion yen

Section 4

Strengthening Defense Industrial Base

Strong industrial base is essential for ensuring the production and a high operation rate of high-performance equipment. For this purpose, the MOD established the Strategy on Defense Production and Technological Bases in June 2014 to maintain and strengthen the base. Based on the National Defense Program Guidelines

(NDPG),¹ etc., the ministry will make efforts towards making the defense industrial base more resilient, so that it can effectively respond to a changing security environment. For example, since 2019, the MOD has arranged meetings to exchange views with the industry.

1 Current Situation of Japan's Defense Industrial Base

The term “defense industrial base” refers to the human, physical, and technological bases that are essential for the production, operation, sustainment, and maintenance of defense equipment required for the MOD/SDF's activities. In Japan, most of the base is covered by companies (the defense industry) that manufacture defense equipment and associated items. Therefore, a broad range of companies² that possess special and advanced skills and facilities are involved in the defense production and technological bases.

Meanwhile, the degree of defense demand dependence (the ratio of defense-related sales that account for all company sales) is approximately 4% on average,³ indicating that defense business is not the primary business in many companies. Furthermore, unit costs and maintenance/sustainment costs tend to increase due to low-volume, high mix production and the sophistication and complication of defense equipment. For this reason, Japan's defense industrial base faces issues, such as difficulties in maintaining

Chapter

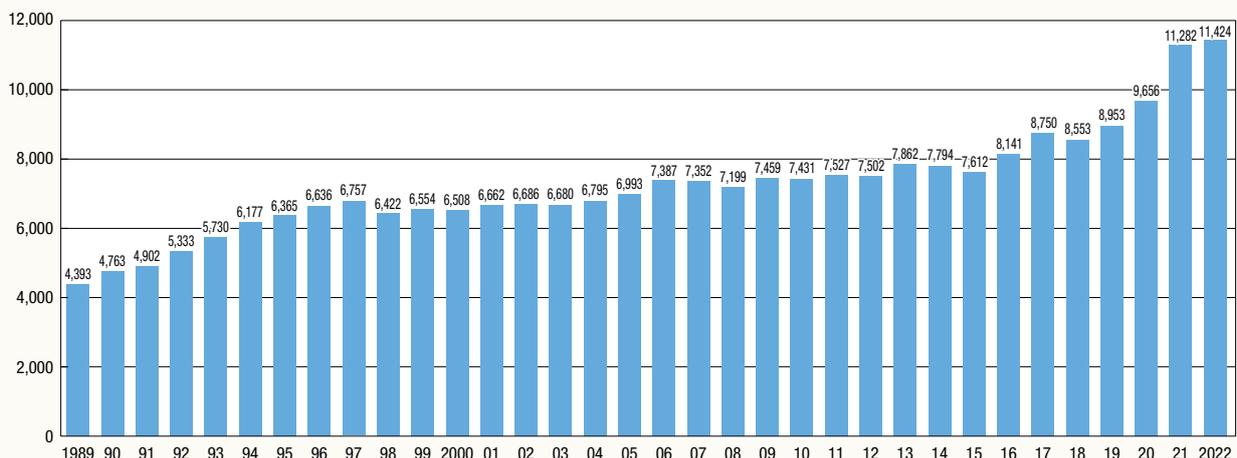
4

Measures on Defense Equipment and Technology

Fig. IV-4-4-1

Changes in Maintenance and Upgrade Expenditures for Major Equipment, etc.

Maintenance and upgrade expenditures for equipment, etc.
(100 million yen)



- Note: 1 “Maintenance and upgrade expenditures for equipment” refers to the budget for repair costs for equipment, consumable goods costs, and service costs with each service of the SDF (referring to the amount calculated by excluding repair costs for the extension of vessel life and modernization of aircraft from the repair costs of each SDF unit).
 2 For FY2019 and FY2020, expenditure for the Three-Year Emergency Response Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience are included.
 3 The amounts represent contractual figures.
 4 The amount for FY2022 includes the FY2021 supplementary budget.

¹ See Part II, Chapter 2, Section 3

² For example, it is said that approximately 1,100, 1,300 and 8,300 companies are involved in the manufacture of fighter aircraft, tanks and destroyers, respectively.

³ According to a survey on the degree of dependence on defense demand based on sales performance conducted in FY2020 (responses from 151 defense-related companies). The rate of dependence on defense demand rose from the approximately 3% average of the previous year's survey, as there was a drop in responses from companies with a low rate of dependence on defense demand. Although relatively small in scale, some companies possess important technologies for supporting the defense industry with over 50% of the defense demand dependence, in which case the scale of defense demand has a significant impact on the management of these companies.

and passing on skills and techniques, and withdrawal of some companies from defense business because work quantity is decreasing due to a decrease of procurement volume.

In addition, as the realignment of the Western defense industries and international joint development are making progress, Japan formulated the Three Principles on Transfer of Defense Equipment and Technology in

April 2014. However, improvement of international competitiveness has become a challenge for Japan's defense industry, because it has developed based on the production of defense equipment only for the SDF.

 **See** Fig. IV-4-4-1 (Changes in Maintenance and Upgrade Expenditures for Major Equipment, etc.)
Section 5-1 (Three Principles on Transfer of Defense Equipment and Technology)

2 The Strategy on Defense Production and Technological Bases

1 Context of Formulation of the Strategy on Defense Production and Technological Bases, etc.

For the purpose of maintaining and strengthening Japan's defense production and technological bases, which is an important and essential element supporting Japan's defense capability, the "Strategy on Defense Production and Technological Bases" was formulated in June 2014. The Strategy responded to the National Security Strategy and the 2013 NDPG, replacing "Kokusankahoshin (guideline for domestic development/production)."⁴

 **See** Reference 2 (National Security Strategy (Outline))

2 Overview of Defense Production and Technological Bases

(1) Significance of Formulation of the Strategy on Defense Production and Technological Bases

"The Strategy on Defense Production and Technological Bases" has made the following three points clear: (1) the context of the formulation of the strategy on defense production and technological bases and where this strategy stands; (2) characteristics of defense production and technological bases; and (3) changes in the environment surrounding defense production and technological bases.

(2) Goals and Significance of Maintaining and Strengthening Defense Production and Technological Bases

Through maintaining and strengthening defense production and technological bases, the MOD intends

to (1) ensure sovereignty of security, (2) potentially contribute to increasing deterrence capability, and maintain and improve bargaining power, and (3) contribute to the sophistication of the domestic industry in Japan driven by cutting-edge technology.

(3) Basic Viewpoints for Promoting Measures

For the promotion of measures, the MOD takes into account the following basic viewpoints: (1) establishing long-term partnership between the private and public sectors; (2) strengthening international competitiveness; and (3) ensuring consistency with efficient and optimized acquisition of defense equipment.

(4) Defense Equipment Procurement Methods

With regard to defense equipment procurement, currently multiple methods, such as domestic development, international joint development and production, licensed domestic production, utilization of commercially produced goods, and imports, are adopted. According to the characteristics of defense equipment, the MOD appropriately selects acquisition methods, including international joint development and production, which have become more agile and flexible due to the Three Principles on Transfer of Defense Equipment and Technology.

(5) Measures for Maintaining and Strengthening Defense Production and Technological Bases

In order to maintain and strengthen defense production and technological bases, the MOD will promote the following measures with a focus on variation and efficiency, while considering Japan's severe fiscal condition: (1) improvement in the contract system; (2)

⁴ The basic guideline for production and development of defense equipment, the development guideline for defense industry, and the stimulation guideline for R&D (Directive July 16, 1970)

initiatives in research and development; (3) promotion of defense equipment and technology cooperation; (4) initiatives for defense industrial organizations including the building of robust production and technological bases through understanding actual situations of the supply chain; (5) strengthening of the MOD's functions through the establishment of ATLA,⁵ etc.; and (6) collaboration with other relevant ministries and government agencies.

(6) Current Situation and Courses of Action for Each Defense Equipment Sector

With regard to the main defense equipment sectors

(such as land equipment, supplies, etc., ships, aircraft, explosives, guided weapons, communications electronics and command control systems, unmanned equipment, space and cyber systems), the MOD will analyze the current situation of defense production and technological bases. At the same time, based on the priority matters for developing the SDF's structure indicated in the 2013 NDPG, the MOD will present the future direction of the maintenance and strengthening of defense production and technological bases and the acquisition plan for each defense equipment sectors, and thereby, seek to increase predictability for companies.

3 Initiatives toward Strengthening of Defense Industrial Base

1 Past Initiatives

Based on the Strategy on Defense Production and Technological Bases, the MOD has implemented various measures contributing to the maintenance and strengthening of the defense industrial base, such as improving the contract system, including the enactment of the Long-term Contract Act, and the establishment of ATLA, which integrated the organizations involved in the defense equipment procurement.

In addition, the following new measures are also taken in ATLA: (1) formulation of Defense Technology Strategy, etc. for ensuring the technological superiority, and implementation of the “Innovative Science & Technology Initiative for Security” (see Section 2); (2) formulation of the Acquisition Strategic Plan for promoting project management, and improvement of contract systems (see Section 3); (3) grasping the supply chain in the defense industry and responses to risks in order to maintain and strengthen the defense industrial base (see Paragraph 2 below); and (4) participation of Japanese companies in the international F-35 fighter aircraft program and defense equipment and technology cooperation involving joint research and development with other countries (see Section 5).

2 Initiatives Based on the NDPG

In order to strengthen Japan's defense industrial base, which is essential to the production, operation,

sustainment and maintenance of defense equipment, the MOD will work on the following initiatives based on the NDPG, etc., while considering the orientation of the defense production and technology strategy.

(1) Reforming the Existing Contract System towards Creating a Competitive Environment among Companies

Japan's defense industry is in a less competitive environment as there are many defense equipment items that only one company can produce. To address this issue, the MOD will review the existing contract system towards creation of a competitive environment among companies by actively evaluating initiatives and results which contribute to strengthening the competitiveness of the defense industry and cost reduction, as well as giving appropriate incentives based on the evaluation result.

(2) Strengthening Risk Management of Supply Chain for Defense Equipment

The procurement of defense equipment involves not only prime companies that directly contract with the MOD but also supplier companies in a broad range of fields and sizes, which contract with the prime companies. The chains of these companies (supply chains) are the basis of Japan's defense industry. However, these supply chains are confronted with risks, such as supply disruption due to withdrawing or bankruptcy of some manufacturing companies. In order to deal with the

⁵ The ATLA was established on October 1, 2015.

risks, the MOD is taking measures in order to maintain and strengthen the supply chains.

Past supply chain surveys revealed the presence of small and medium-sized enterprises (SMEs) that have a high dependency rate on defense equipment. In the supply chain survey conducted by the end of FY2021,⁶ key suppliers holding irreplaceable technologies were identified. Additionally, vulnerabilities became apparent, such as a concentration of orders to a certain supplier. Based on the survey results, the MOD is creating a database of the results of the supply chain survey, and building a regular monitoring system for early identification of risks, such as supply disruption.

Furthermore, the MOD is making efforts to identify SMEs that have excellent technologies/products and has been supporting business transfer when an enterprise in the supply chain withdraws from the business since FY2021. The MOD will also properly deal with the vulnerabilities in the supply chain and strengthen the supply chain through initiatives such as evaluation of the possibility of application of innovative technologies represented by the 3D printer and AI to the manufacturing process of defense equipment.

(3) Further Industrial Participation of Japan's Defense Industry in Sustainment and Maintenance of Imported Equipment

Industrial participation in the sustainment and maintenance business of imported equipment is productive for the strengthening of Japan's industrial base. For this purpose, it is important to pursue participation in the sustainment and maintenance of F-35A fighter aircraft, Osprey, and other imported equipment and benefits for domestic companies through further promotion of joint R&D of high-capability equipment with the United States and other countries.⁷

(4) Promoting Appropriate Overseas Transfer of Defense Equipment under the Three Principles on Transfer of Defense Equipment and Technology

The government as a whole will work on necessary

improvement in implementation of related rules for promoting appropriate overseas transfer of defense equipment. At the same time, the MOD will strengthen intellectual property management, technology control and information security to prevent leakages of important technologies regarding defense equipment.

a. Initiatives for Necessary Operational Improvement

The MOD, in cooperation with relevant ministries and agencies, will work on necessary improvement in implementation of related rules based on the Three Principles on Transfer of Defense Equipment and Technology, which are the operational standards for the Foreign Exchange and Foreign Trade Act. As a result, the MOD will enhance predictability for the defense industry and will promote appropriate and smooth equipment transfer.

Specifically, it is necessary to improve the implementation of relevant systems and procedures, which include rationalization of the handling of basic marketing information necessary for early business talks at international trade shows, etc.,⁸ in order to ensure the smooth provision of such information.

b. Preventing Leakage of Key Technologies

(a) Intellectual Property Management

Through the application of more appropriate contract provisions regarding intellectual property, the MOD will accurately grasp intellectual property generated through R&D, etc., to promote the clarification of public or private belongings and prevention of leakages of key technologies to abroad. The ministry will also present options regarding the opening or closing of intellectual properties based on the characteristics of the technology and promotes appropriate management for each option.

(b) Technology Control

The MOD is working to prevent technology leakage by such means as ensuring prompt and proper assessment of technological sensitivity based on the importance and superiority of the technologies, which is needed in the examination of the propriety of overseas transfer of defense equipment and technology. Also, in order to prevent leakages of sensitive technologies, the MOD, in cooperation with relevant ministries and agencies,

⁶ By the end of FY2021, the MOD conducted a supply chain survey of 68 major defense equipment items.

⁷ SM-3 block IIA, jointly developed by Japan and the United States, is subject to FMS procurement, but Japanese companies have received contracts for manufacturing about half of the components, including those procured by the United States.

⁸ In October 2018, the Q&A section of the Ministry of Economy, Trade and Industry website made it clear that information on the performance of goods and other matters that is used in early stage business talks and that does not include "specific information necessary for design, manufacture or use," such as design information and production technique, is not subject to regulation under the Foreign Exchange Act. At the request of companies, the MOD is currently confirming the range of information included in data created by a company that may be disclosed to the public and handled as publicly known technology available to an unspecified large number of people.

promotes studies on reverse engineering countermeasure technologies, such as black box constitution.

(c) Strengthening Information Security

For Japan's defense industry to participate in international businesses, it is necessary to respond to increasing threats of cyber attacks. With the aim of strengthening information security measures, the MOD developed the Defense Industrial Cybersecurity Standard, a new information security standard applicable to contractors handling the MOD's information to be protected⁹ that includes control measures on par with the standards that U.S. Department of Defense contractors are obligated to meet.

In order to further encourage companies to consider entry into defense procurement business and facilitate their business with defense-related companies in Japan and abroad, it is important to improve the predictability of the necessary security measures for the companies. For this purpose, the MOD will develop an information security guidebook that comprehensively defines security measures that will normally be required for concluding a contract, which involves the handling of information to be secured, with the MOD in advance.

(5) Other Initiatives to Achieve Efficiency and Strength

Other than the above-mentioned initiatives, the MOD/SDF will undertake measures such as making the equipment manufacturing process efficient and thoroughly reducing cost and will strive to make Japan's defense industry base efficient and resilient while foreseeing possible realignment and consolidation of businesses that may occur as a result of these measures.

3 Cooperation/Collaboration with the Industry

The maintenance and strengthening of Japan's technological and industrial base are essential for production, operation and maintenance of defense equipment. For the effort of "Reinforcing Technology Base" and "Strengthening Defense Industrial Base" that are provided in NDPG and MTDP, cooperation between the MOD and the industry is indispensable.

In this context, in October 2019, then Defense Minister Kono and executives of the Japan Business Federation exchanged opinions on a wide range of themes, including international situations and defense policy in addition to defense equipment policy, and discussed the strengthening of public-private cooperation in general. Since November of the same year, ATLA and the Defense Industry Committee of the Japan Business Federation had exchanged opinions on eight occasions on "Overseas Transfer of Defense Equipment and Technology," "Maintaining and Strengthening Supply Chains," "Aggressive Utilization of Advanced Civilian Technology," "Strengthening Information Security," and other issues. The outcome of the sessions was reported to Defense Minister Kishi and executives of the Japan Business Federation and received their approval in December 2020.

The MOD will continue to enhance public-private cooperation in order to strengthen the defense industrial and technological bases as is explicitly stated in the NDPG, such as by initiating exchanges of views with the defense industry (major prime contractors) from February 2022 and the Minister of Defense Kishi meeting with the presidents of major prime contractors in one place to share problems and challenges that both sides have identified in April 2022.

⁹ Information subject to "Sensitive" or "For Official Use Only" in the MOD and information created using such information.

Section 5

Defense Equipment and Technology Cooperation

Based on the Three Principles on Transfer of Defense Equipment and Technology, Japan promotes cooperation in defense equipment and technology with other countries in order to contribute to the maintenance and strengthening of defense technological and industrial bases, as well as contribute to the promotion of our national security, peace and international cooperation.

Based on the National Security Strategy formulated in December 2013, the Three Principles on Transfer of Defense Equipment and Technology¹ and its implementation guidelines were formulated in April 2014 as clear principles adapted to the new security environment. Under the three principles, the MOD will contribute to peace and international cooperation more than ever, while actively promoting measures necessary for maintaining the peace and stability of the region and firmly defending Japan through active defense cooperation with the United States, which is Japan's ally, and other countries.

An appropriate overseas transfer of defense equipment and technology contributes to further active promotion of the maintenance of international peace and security. Such transfer also contributes to strengthening security and defense cooperation with Japan's ally, the

United States as well as other countries. Furthermore, it contributes to maintaining and enhancing Japan's defense production and technological bases, thereby contributing to Japan's enhancement of defense capability, given that international joint development and production projects have become the international mainstream. On the other hand, since the MOD began its efforts towards overseas transfers in earnest after the formulation of the Three Principles on Transfer of Defense Equipment and Technology, a variety of difficult issues have arisen, including insufficient competitiveness in comparison to the United States, European countries, and other countries and regions, who have been actively implementing such efforts for a long time. For this purpose, Japan will continue to realize effective defense equipment and technology cooperation through the strengthening of information gathering such as the needs of its counterparts, cooperation including assistance for maintenance and repair of equipment, and strengthening of cooperative posture between the public and private sectors.

 See Reference 61 (Three Principles on Transfer of Defense Equipment and Technology)

1 Three Principles on Transfer of Defense Equipment and Technology

1 Main Contents of the New Three Principles

(1) Clarification of Cases Where Transfers Are Prohibited (the First Principle)

The cases where overseas transfers of defense equipment are prohibited are clarified as follows: (1) in the case of violating the obligations under treaties and other international agreements that Japan has concluded; (2) in the case of violating the obligations based on the Resolution of the United Nations Security Council; or (3) in the case of transferring to countries in conflict.

(2) Limitation to Cases Where Transfers May Be Permitted As Well As Strict Examination and Information Disclosure (the Second Principle)

The cases where transfers may be permitted are limited to (1) cases that contribute to the active promotion of peace contribution and international cooperation, (2) cases that contribute to the security of Japan, or other cases. Also strict examination will be conducted on the appropriateness of the destination and end user, and the extent of whether each overseas transfer will raise concern for Japan's security while ensuring transparency. In addition, it has been decided that important cases would be deliberated at the National Security Council and along with this, information concerning the cases

¹ The term "defense equipment" is deemed appropriate for the title of "Three Principles for the Transfer of Defense Equipment and Technology," since articles of potential overseas transfer helps with peace contribution and international cooperation as seen in the example of the provision of bulldozers and other items belonging to the SDF to disaster-stricken countries. Similarly, due to the fact that there is provision of technology in addition to goods, the term "transfer" was adopted rather than "export."

that were deliberated would be disclosed.

(3) Ensuring Appropriate Control regarding Extra-Purpose Use or Transfer to Third Parties (the Third Principle)

Overseas transfers of defense equipment and technology will be permitted only in cases where appropriate control is ensured, and the Government will in principle oblige the government of the recipient country to gain its prior consent regarding extra-purpose use and transfer to third

parties. However, in cases where it is judged appropriate for the active promotion of peace contribution and international cooperation, cases involving participation in the international systems for sharing parts, and cases where parts are delivered to a licensor, appropriate control may be ensured with the confirmation of the control system at the destination.

See Reference 62 (Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology)

2 Deepening Relationships with the United States regarding Defense Equipment and Technology Cooperation

1 Joint Research and Development, etc.

Since 1992, Japan has implemented 25 joint research projects and one joint development project with the United States. At present, five joint research projects are ongoing: ((1) Comparison of Operational Jet Fuel and Noise Exposures, (2) High-Temperature Case Technologies, (3) Next Generation Amphibious Technologies, (4) Mission Partner Gateway eXtended, and (5) Modular Hybrid Electric Vehicle System)

Since July 2014, it has been confirmed that the transfer of component of Patriot PAC-2, software and parts related to the Aegis System and F100 engine parts that are installed in F-15s and F-16s from Japan to the United States, will fall under cases in which overseas transfers may be permitted, based on deliberations at the National Security Council.

See Part III, Chapter 1, Section 2-2-2 (Missile Defense of the United States and Japan-U.S. BMD Technology Cooperation) Reference 26 (Japan-U.S. Joint Research and Development Projects)

2 Production, Sustainment and Maintenance of Common Equipment between Japan and the United States

(1) Participation of Japanese Industry in the Production of the F-35A fighter aircraft and the Establishment of Regional Maintenance, Repair,

Overhaul and Upgrade (MRO&U) Capability

In December 2011, Japan selected the F-35A fighter aircraft to be the successor to the F-4 fighter aircraft. At the same time, the Government decided to procure 42 aircraft from FY2012 onwards and to have Japanese industries participate in its production, aside from several completed aircraft, which will be imported.² In light of this decision, the Japanese Government has been working to enable the involvement of Japanese industries in the manufacturing process in preparation for the acquisition of F-35A fighter aircraft from FY2013 onwards. So far the Japanese companies have participated in the Final Assembly and Check Out (FACO) for airframe and engines, and the manufacture of related parts.

In light of the severe financial condition, for the procurement of F-35A fighters in FY2019 and after, the MOD decided to utilize the more cost effective means of importing completed aircraft.

Later, however, as a result of cost reduction efforts by the manufacturers, including improvement in the manufacturing process and reduction of person-hours through work skill improvement, it was confirmed that the FACO by domestic companies would make the price lower than importing completed aircraft. For this reason, for the FY2019 to FY2022 procurements, the MOD has decided to procure F-35A fighters finally assembled and completed by domestic companies.³

In addition, as F-35 fighter aircraft are operated worldwide, the U.S. Government decided to establish

² In December 2018, the number of F-35A fighter aircraft to be procured was changed from 42 to 147, of which 42 can be replaced by fighters that are capable of short take-off and vertical landing (STOVL).

³ In December 2019, December 2020, and December 2021, it was decided to choose manufacturing arrangements involving domestic companies for F-35A fighter aircraft procurement in FY2019 and FY2020, FY2021, and FY2022 respectively as it was confirmed to be more cost effective.

maintenance depot (regional MRO&U Capability) mainly for airframes and engines in the North America, Europe, and the Asia-Pacific regions.

The regional MRO&U in the Asia-Pacific region for Japan's F-35 fighter airframes selected by the U.S. Government in December 2014 began operations at Mitsubishi Heavy Industries' Komaki South Plant located in Aichi Prefecture from July 2020. Moreover, with regard to the regional MRO&U Capability for engines, the U.S. Government announced its decision in December 2014 that initial capability will be provided by Australia by early 2018, with Japan providing additional capability at least 3-5 years later,⁴ and preparations to begin operations are currently underway.

Japanese industries continuously participating in the production of F-35 fighters, establishing a maintenance depot for airframes, engines and others within Japan, and contributing to maintenance in the Asia-Pacific region are significant from the perspectives of securing the operational support system for F-35A fighter aircraft in Japan, maintaining, cultivating, and enhancing the Japanese defense industrial base, strengthening the Japan-U.S. Alliance, and deepening equipment cooperation in the Indo-Pacific region.

(2) Initiatives towards the Establishment of the Common Maintenance Base for Ospreys of Japan and the U.S.

As the Planned Maintenance Interval (PMI) of the U.S.

Marine Corps Ospreys deployed at Marine Corps Air Station Futenma was scheduled to commence roughly in 2017, the U.S. Navy carried out a public tender to select a maintenance company. Fuji Heavy Industries Ltd.⁵ was selected as the maintenance company for this purpose in October 2015. From February 2017, the PMI has been carried out at GSDF Camp Kisarazu. Maintenance of the first aircraft was completed in March 2019, the second in March 2020, the third in January 2021, the fourth in July 2021, and the fifth in April 2022, with the aircraft then delivered to the U.S. Forces. The sixth, seventh and eighth aircraft are currently under maintenance as of April 2022.

The MOD intends to establish a common maintenance base for both Japan's and the United States' Osprey by allowing the maintenance company to use the hangar at GSDF Camp Kisarazu for aircraft maintenance of the U.S. Marine Corps Osprey and also to implement the future aircraft maintenance of the GSDF Osprey (V-22) at the same camp from the following perspectives: (1) smooth introduction of the V-22;⁶ (2) smooth and effective operation of the Japan-U.S. security arrangements; and (3) enhanced efficiency in maintenance. The establishment of a common maintenance base at GSDF Camp Kisarazu would be extremely significant in that it will contribute to mitigating the burden on Okinawa as well as the "Strengthening of the basis to repair and maintain common equipment" stated in the new Guidelines.

3 Building New Defense Equipment and Technology Cooperation

1 Defense Equipment and Technology Cooperation with Other Countries, etc.

Defense equipment and technology cooperation with major European countries, which have competitive defense industries, will contribute to the strengthening of security and defense cooperation with these countries and also contribute to the maintenance and strengthening of the defense industrial bases in Japan.

Furthermore, as partner countries in the Indo-Pacific

region have expressed their interest and expectation regarding defense equipment and technology cooperation with Japan, the MOD seeks to establish and deepen relationships with these countries.⁷

 See Fig. IV-4-5-1 (Examples Defense Equipment and Technology Cooperation with Other Countries) [image] Reference 35 (Situations Concerning the Conclusion of Agreements)

(1) The United Kingdom

In July 2013, Japan and the U.K. concluded the

⁴ The regional MRO&U for engines in Japan is scheduled to be located at IHI Corporation (Mizuho factory in Tokyo).

⁵ The company was renamed SUBARU Corporation on April 1, 2017.

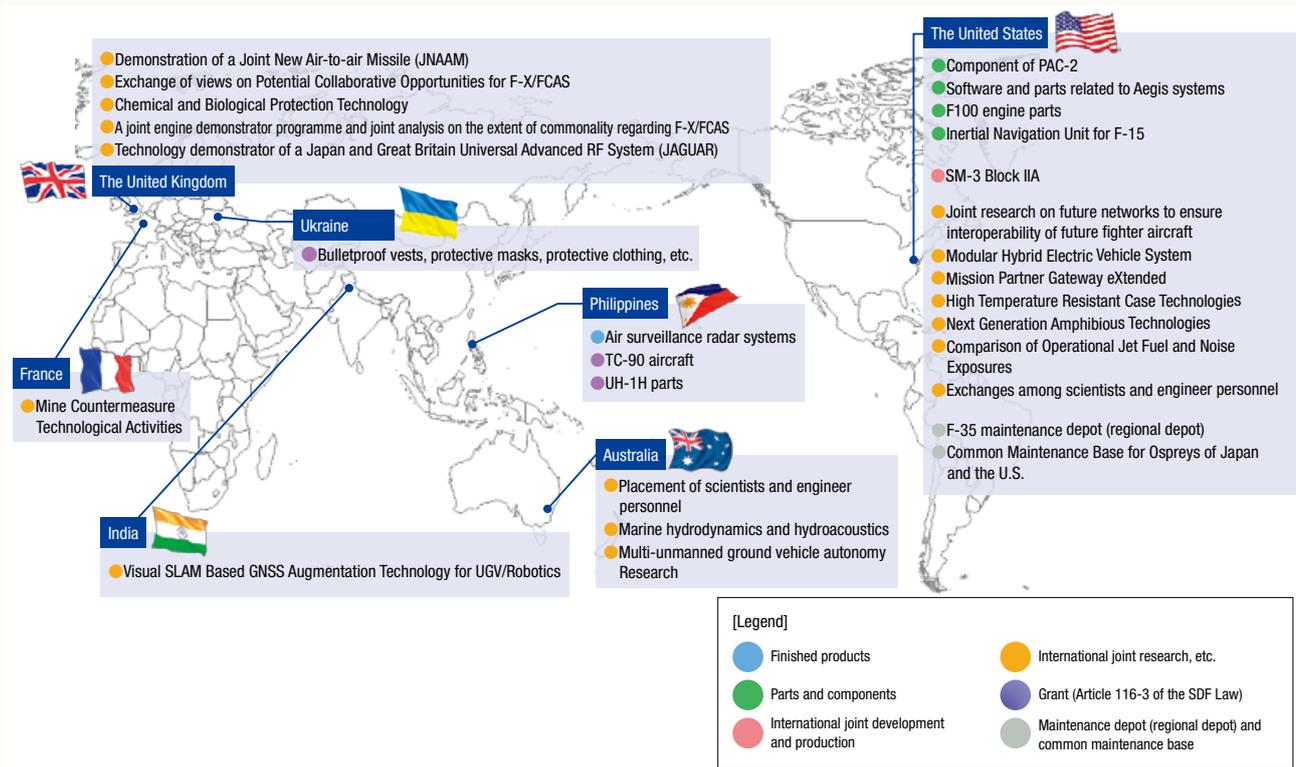
⁶ GSDF will introduce 17 tilt-rotor aircraft (Osprey (V-22)) that can complement and strengthen the capabilities of transport helicopters (CH-47JA) in terms of cruising speed and range. As a temporary measure until completion of the maintenance facilities in Saga Airport, the aircraft will be temporarily deployed at Camp Kisarazu.

⁷ As of May 2022, Japan has signed the Agreement concerning the Transfer of Defense Equipment and Technology with the following countries: the United States; the United Kingdom; Australia; India; the Philippines; France; Germany; Malaysia; Italy; Indonesia; Vietnam, and Thailand. (See Reference 35 [Situations Concerning the Conclusion of Agreements])

Fig. IV-4-5-1

Examples Defense Equipment and Technology Cooperation with Other Countries [image]

As of April 2022



Agreement concerning the Transfer of Defense Equipment and Technology⁸ and it went into effect. In the same month, the two countries also started the Chemical and Biological Protection Technology Cooperative Research Project, which is the first time for Japan to engage in such bilateral research, except for ones with the United States. The Cooperative Research was completed successfully in July 2017.

Also, the Japan-U.K. Cooperative Research Project on the Feasibility of a Joint New Air-to-Air Missile (from November 2014 to March 2018), the Cooperative Research on Personnel Vulnerability Evaluation (from July 2016 to July 2020) and the Cooperative Research on the Certification Process of Jet Engines (from February 2018 to February 2020) were all completed successfully. The Japan-U.K. Cooperative Research

Project on the Demonstration of a Joint New Air-to-air Missile and a new Chemical and Biological Protection Technology Cooperative Research Project were launched in December 2018 and July 2021 respectively. The Cooperative Research on the Feasibility of a Japan and Great Britain Universal Advanced RF System (JAGUAR) that launched in March 2018 transitioned into the Cooperative Research on the Technology Demonstrator of JAGUAR in February 2022, which is currently ongoing with a view to applying the system to the F-X.

Furthermore, the two countries have been exchanging information regarding the F-X and the Future Combat Air System (FCAS),⁹ which the two countries are working on respectively, through the Joint Preliminary Study on Potential Collaborative Opportunities for



MOVIE: Promotional video that the Acquisition, Technology & Logistics Agency disseminates overseas to promote defense equipment and technical cooperation (English version)

URL: https://www.mod.go.jp/atla/en/policy/defense_equipment.html#guides_and_movies

⁸ Official name: Agreement Between the Government of Japan and the Government of the United Kingdom of Great Britain and Northern Ireland Concerning the Transfer of Arms and Military Technologies Necessary to Implement Joint Research, Development and Production of Defence Equipment and Other Related Items
⁹ Generic name of the whole future combat air system in the U.K.

F-X/FCAS. Both countries are exchanging views on the possibility of future collaboration opportunities for F-X/FCAS between not only the governments but also including industries.

Additionally, two countries first held the meeting of the Japan-U.K. High-Level Defense Equipment and Technology Cooperation Steering Panel in July 2014 and this discussion continues in regular basis.

See Part III, Chapter 3, Section 1-2-5 (1) (The United Kingdom)

(2) France

Japan and France established committees on cooperation in the field of defense equipment and on export control respectively in January 2014, and the Agreement concerning the Transfer of Defense Equipment and Technology¹⁰ went into effect in December 2016. Moreover, at the Fourth Japan- France Foreign and Defense Ministers' Meeting (“2+2”) held in January 2018, the two countries confirmed their intention to quickly start the cooperative research on the Feasibility Study for Mine Countermeasure Technological Activities and started the cooperative research in the following June.

In June 2017, the Maritime Self-Defense Force (MSDF) P-1 maritime patrol aircraft participated in the “Paris Air Show 2017,” and ATLA set up an exhibition booth for P-1 aircraft for the first time at an international defense equipment exhibition. The MSDF P-1 maritime patrol aircraft and the ASDF C-2 transport aircraft participated in the “Paris Air Show 2019” held in June 2019.

See Part III, Chapter 3, Section 1-2-5 (2) (France)

(3) Germany

Japan and Germany signed the Agreement concerning the Transfer of Defense Equipment and Technology¹¹ and it went into effect in July 2017. Also, in April 2018, the MSDF P-1 maritime patrol aircraft participated in the “Berlin Air Show 2018,” and the ATLA set up an exhibition booth related to P-1 aircraft.

See Part III, Chapter 3, Section 1-2-5 (3) (Germany)

(4) Italy

With Italy, the Agreement concerning the Transfer of

Defense Equipment and Technology¹² went into effect in April 2019. In January 2019, the two countries held the “Japan-Italy Defense Industry Forum” in Europe for the first time, and established a framework for director-level meetings on defense equipment and technology cooperation.

See Part III, Chapter 3, Section 1-2-5 (11) Italy

(5) Ukraine

In response to Russia’s aggression against Ukraine in February 2022 and based on a request by the Ukrainian Government, the MOD partially revised the Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology at the March 8 meeting of the National Security Council in order to provide non-lethal equipment and goods based on the Self-Defense Forces Law and within the scope of the Three Principles on Transfer of Defense Equipment and Technology, and provided the Ukrainian Government with bulletproof vests, helmets, winter battle dress uniforms, tents, cameras, medical supplies, emergency rations, binoculars, light devices, personal equipment, protective masks, protective clothing, and drones from March 2022 via SDF aircraft and other means.

See Part III, Chapter 3, Section 1-2-5 (8) (Ukraine)
Reference 62 (Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology)



Picture of the transport of equipment and goods to be provided to Ukraine (March 2022)

¹⁰ Official name: Agreement between the Government of Japan and the Government of France concerning the Transfer of Defense Equipment and Technology

¹¹ Official name: Agreement between the Government of Japan and the Government of the Federal Republic of Germany concerning the Transfer of Defense Equipment and Technology

¹² Official name: Agreement between the Government of Japan and the Government of the Italian Republic concerning the Transfer of Defense Equipment and Technology

(6) Australia

With Australia, the Agreement concerning the Transfer of Defence Equipment and Technology¹³ went into effect in December 2014.

Subsequently, joint research on Marine Hydrodynamics started in December 2015 and ended in November 2019. In November of the same year, the Arrangement concerning the Placement of Scientists and Engineer Personnel was signed, creating the framework for the cooperation of scientists and engineers. Based on this framework, Japan has sent scientists and engineers to the Defence Science and Technology Group of Australia since 2021.

In May 2021, the Japan-Australia Joint Research on Marine Hydrodynamics and Hydroacoustics and Multi-vehicle Autonomy Research launched and are currently in progress.

Japan demonstrated its technical strength through the participation of the ASDF C-2 transport aircraft in “Avalon International Airshow” held in Australia in February 2019.

Also, they held the second meeting of the Japan-Australia Steering Committee for Defence Equipment and Technology Cooperation in June 2019. At the meeting, the participants deepened discussions on measures for further promotion of defense equipment and technology cooperation between the countries in an effort to move ahead with the cooperation.

Furthermore, in November 2021, the first Australia-Japan Space and Cyber Symposium was held to deepen mutual understanding on the countries’ respective industries and defense equipment technologies, particularly in the fields of space and cyberspace.

 See Part III, Chapter 3, Section 1-2-1 (Australia)

(7) India

Japan considers defense equipment and technology cooperation with India an important field of cooperation based on the special strategic global partnership between Japan and India. At the Japan-India summit meeting in December 2015, both countries signed the Agreement concerning the Transfer of Defense Equipment and Technology¹⁴ and it went into effect in March 2016.

To form the case of defense equipment and technology cooperation including dual use technologies, both

countries have held the Joint Working Group on Defence Equipment and Technology Cooperation six times so far. At the Japan-India Defense Ministerial Meeting held in September 2017, the ministers agreed to commence the discussions for research collaboration. In July 2018, the two countries launched the Cooperative Research on the Visual SLAM based GNSS Augmentation Technology for UGV¹⁵/Robotics.

In February 2019, the second Japan-India Defence Industry Forum, was held in Bengaluru and discussions on defense equipment and technology cooperation between the two countries has been progressed.

 See Part III, Chapter 3, Section 1-2-2 (India)

(8) Association of Southeast Asian Nations (ASEAN) Countries

Japan and ASEAN member states have exchanged views regarding defense equipment and technology cooperation in non-traditional security sectors, such as humanitarian assistance, disaster relief, and maritime security, through the Japan-ASEAN Defense Vice-Ministerial Meetings and other occasions. Participating countries have expressed their expectation for Japan’s cooperation in effectively dealing with these issues. In the “Vientiane Vision” announced by Japan at the ASEAN-Japan Defence Ministers’ Informal Meeting held in November 2016, Japan stated defense equipment and technology cooperation with ASEAN countries would be promoted with a focus on the following three points: (1) equipment and technology transfer, (2) human resources development, and (3) holding seminars on defense industries.

As a specific initiative, the Agreement between the Government of Japan and the Government of the Republic of the Philippines concerning the Transfer of Defense Equipment and Technology went into effect in April 2016. In September of the same year, Japan and the Philippines made an official agreement on the transfer of MSDF’s TC-90 training aircraft to the Philippine Navy at the Japan-Philippines summit meeting. Based on the agreement, two TC-90s were delivered to the Philippine Navy in March 2017, followed by the delivery of the remaining three TC-90s in March 2018. Furthermore, TC-90 pilot training support was provided for pilots from the Philippine Navy at the MSDF Tokushima Air

¹³ Official name: Agreement between the Government of Japan and the Government of Australia concerning the Transfer of Defence Equipment and Technology

¹⁴ Official name: Agreement between the Government of Japan and the Government of the Republic of India concerning the Transfer of Defense Equipment and Technology

¹⁵ “UGV” stands for “Unmanned Ground Vehicle.”

Base from November 2016 to March 2018, and from April 2017 to March 2021, maintenance and repair assistance by dispatched personnel from a Japanese maintenance company was provided to the Philippines.

Regarding the transfer, it was confirmed at the Japan-Philippines Defence Ministerial Meeting in June 2018 that parts and maintenance equipment of the UH-1H utility helicopters that became unnecessary for the GSDF would also be granted to the Philippine Air Force. After the signing of an arrangement between the defense officials involved in the transfer in November 2018, delivery of some components started in March 2019 and was completed in September 2019. These two transfers were cases of the application of the provision of the SDF Law enforced in June 2017 that enables the MOD to grant or transfer the equipment which is decommissioned by the SDF to the governments of developing states for a lower price than the current price (see Paragraph 3 below).

Further, in January 2019, a framework was established for regular consultations of the Joint Working Group on Defense Equipment and Technology Cooperation. In August 2020, a contract was concluded between the Department of National Defense of the Philippines and Mitsubishi Electric Corporation, Inc., who would supply four air surveillance radar systems for approximately US\$100 million. This was the first case of overseas transfer of finished equipment since the 2014 establishment of the Three Principles on Transfer of Defense Equipment and Technology.

In November 2017, Japan and Thailand agreed to promote future defense equipment and technology cooperation, including early conclusion of the Agreement concerning the Transfer of Defense Equipment and Technology, and this was signed and came into effect on Prime Minister Kishida's visit to Thailand in May 2022.¹⁶

Japan and Vietnam signed the Terms of Reference (TOR) for regular consultations concerning defense equipment and technological cooperation at the Japan-Vietnam Defense Vice-Ministerial Level Meeting in November 2016. Concerning the specific fields of cooperation, the Memorandum between Japan and Vietnam Defense Authorities on the Orientation of

Promotion of Defense Industry Cooperation was signed during the Japan-Vietnam Defense Ministerial Meeting in May 2019. Following this, during Minister of Defense Kishi's visit to Vietnam in September 2021, the two countries signed the Agreement concerning the Transfer of Defense Equipment and Technology¹⁷ and it went into effect.

Japan and Malaysia signed the Agreement concerning the Transfer of Defence Equipment and Technology¹⁸ and it went into effect in April 2018.

Japan and Indonesia held the second Japan-Indonesia "2+2" in Tokyo in March 2021. On the spot, both countries signed the Agreement concerning the Transfer of Defense Equipment and Technology.¹⁹

The MOD will continue to promote cooperation for humanitarian assistance and disaster relief as well as the maritime security area through these initiatives.

 See Part III, Chapter 3, Section 1-2-3 (Association of South-East Asian Nations (ASEAN))

(9) Middle East

With regard to the United Arab Emirates (UAE), ASDF participated in the "Dubai Airshow 2021" in November 2021 following its participation in 2019, and conducted an on-the-ground display and flight demonstration of the C-2 transport aircraft. Major General Staff Pilot Ibrahim Nasser M. Al-Alawi, Commander of the UAE Air Force, and other officials from various countries visited to see them.

With regard to Jordan, upon a request from His Majesty King Abdullah II ibn Al Hussein, King of the Hashemite Kingdom of Jordan, in August 2019, Japan lent a retired GSDF Type-61 main battle tank without charge to Jordan for display at the Royal Tank Museum. Meanwhile, the King offered to donate an armored vehicle developed in Jordan to the Japanese GSDF and the GSDF received the vehicle in the same month. In October 2019, both countries held a ceremony for the lending and donation at the MOD. At the ceremony, our Minister of Defense and Jordanian ambassador extraordinary and plenipotentiary to Japan delivered speeches, and signed and exchanged letters. In November 2019, our ambassador extraordinary and plenipotentiary to Jordan and the Director of the Jordan

¹⁶ Official name: Agreement between the Government of Japan and the Government of the Kingdom of Thailand concerning the Transfer of Defense Equipment and Technology

¹⁷ Official name: Agreement between the Government of Japan and the Government of the Socialist Republic of Vietnam concerning the Transfer of Defense Equipment and Technology

¹⁸ Official name: Agreement between the Government of Japan and the Government of Malaysia concerning the Transfer of Defence Equipment and Technology

¹⁹ Official name: Agreement between the Government of Japan and the Government of the Republic of Indonesia concerning the Transfer of Defense Equipment and Technology

Royal Tank Museum unveiled the loaned GSDF Type-61 main battle tank at the museum and set up a panel for its explanation.

Israel and Japan signed a Memorandum on Protection of Information for the Exchange of Classified Information on Defense Equipment and Technology²⁰ in September 2019 for appropriate protection of such classified information provided between Japanese and Israeli defense authorities.

2 Establishment of Regulations on Equipment Cooperation with Developing Countries

Surrounded by an increasingly severe security environment, it has become even more important for Japan that the nations which have a cooperative and friendly relationship with Japan in terms of security and defense have appropriate capabilities. It is also critical to develop a foundation that will serve as the basis for the international community to cooperate towards improving the security environment.

Among these friendly nations, some have difficulties in acquiring an adequate level of defense equipment on their own because of the scale of their economy and fiscal situation. Some of these states have been

requesting to use SDF equipment that is no longer in use. However, Article 9, paragraph (1) of the Public Finance Act²¹ stipulates that the Government must receive reasonable consideration when transferring or leasing any governmental properties including the SDF's equipment to other countries. Therefore, a grant or a transfer at a lower price than the current price is not allowed except when permitted by law.

Under these circumstances, to respond to the needs of such friendly nations, the MOD established a special provision of Article 9, paragraph (1) of the Public Finance Act in the SDF Act and it went into force in June 2017. The provision enables the MOD to grant or transfer the SDF's equipment which is no longer used to the governments of developing states at a lower price than the current price.

Even in the case of granting or transferring equipment at a lower price than the current price as per this provision, whether or not to transfer such equipment, and to which government such equipment is to be transferred, will be determined case-by-case in light of the Three Principles on Transfer of Defense Equipment and Technology and other regulations. In addition, the Government of Japan and partner countries must conclude an international agreement to prevent extra-purpose use and transfer to third-parties without the prior consent of Japan.

4 Adapting Defense Equipment for External Use

With regard to aircraft, since there is much in the technological base shared between the defense and civilian sectors, taking measures to contribute to the revitalization of the civilian sector will contribute to maintaining and activating the industrial bases of Japanese aircraft, and by extension, to maintaining and strengthening the defense industrial base in Japan. It is from this perspective that the MOD has been considering the civilian use of aircraft that it has developed.

In August 2010, the MOD compiled a set of guidelines for the development of a concrete system for the civilian use of aircraft, while in 2011, it also developed an application procedure for private companies interested in civilian use. So far, technical

data related to the civilian use of the US-2 amphibian rescue aircraft and the F7-10 engine that are mounted on P-1 maritime patrol aircraft have been disclosed in response to requests from the implementing companies. In December 2016, the ATLA and IHI Corporation, a company manufacturing the F7-10 engine, signed a contract for the civilian use of the F7-10 engine for sales to the Japan Aerospace Exploration Agency (JAXA) for the first time. The engine was delivered to JAXA in September 2019.

Considering that there have been inquiries about equipment other than aircraft not only from the private sector but also from foreign governments since the establishment of the Three Principles for the Transfer

²⁰ Official name: Memorandum on Protection of Information for the Exchange of Classified Information on Defense Equipment and Technologies between the Ministry of Defense of Japan and the Ministry of Defense of the State of Israel

²¹ Article 9, paragraph (1) of the Public Finance Act (Act No. 34 of 1947) Governmental assets, unless otherwise provided, may not be exchanged and used as other means of payment, or transferred or leased without reasonable consideration.

of Defense Equipment and Technology, the term was changed from “Adapting Defense Equipment for Civilian Use” to “Adapting Defense Equipment for External Use,” and procedure rules were prepared in August 2018 towards project formulation in the future.

In 2019, technical data, etc., for adapting defense equipment for external use concerning the automatic flight control computer processing unit for the improved SH-60K and Ship Landing Assist System for SH-60K were disclosed upon applications from companies.

5 Participation in International Defense Equipment Exhibitions

The ATLA has participated in international defense equipment exhibitions to introduce Japan’s defense equipment policies and advanced technology. These initiatives help foreign government officials to better understand Japan’s equipment policies and technology, and contribute to building bases for the promotion of defense equipment and technology cooperation.

Since 2020, international defense equipment exhibitions have been successively cancelled or

postponed due to the impact of the global spread of COVID-19, and the ATLA has been forced to forego its participation in such exhibitions. However, in November 2021 the ATLA participated in the “Dubai Airshow 2021” in the UAE and widely sent out information on advanced technologies symbolized by Japan-made aircraft, through conducting an on-the-ground display and flight demonstration of C-2 transport aircraft developed by Japan.

6 Public-Private Collaboration for Appropriate Overseas Transfer of Defense Equipment

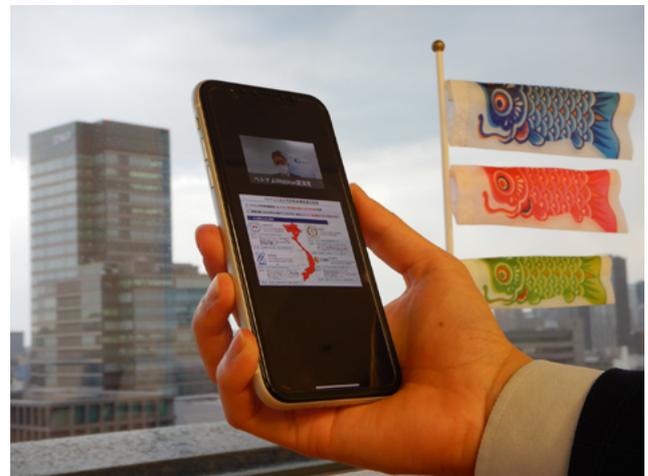
With regard to the overseas transfer of defense equipment, the National Defense Program Guidelines and Medium Term Defense Program stipulate “Whole-of-government efforts to promote appropriate overseas transfer of defense equipment under the Three Principles on Transfer of Defense Equipment and Technology.” In response to this, public and private sectors are working together in order to strengthen the defense industrial base while promoting security cooperation with other countries. Specifically, in cooperation with trading companies and manufacturing companies, the ATLA is conducting “Feasibility Studies” to grasp the potential needs of target countries and carry out activities for proposals since FY2020. For FY2020 and FY2021, it targeted four countries of India, Indonesia, Malaysia, and Vietnam, and several projects were identified which could potentially lead to future overseas transfer, by establishing an information collection network that utilizes the overseas networks of trading companies.

The ATLA plans to proceed with its efforts in FY2022 to discover more projects.

Between Japan and other countries, the Defense Industries Business Forums, the forums in which defense ministries and companies of both countries get together and exchanges opinions, have been conducted with six countries so far: Indonesia (held in August 2017), India,

Vietnam, Australia, Italy and the Philippines.

As part of the efforts to improve the knowledge of public and private sectors regarding overseas transfer to other countries, the ATLA has been holding “webinars on the overseas transfer of defense equipment” in Japan to create opportunities to learn about cases with other countries in the field of the private business sector and the current status of defense equipment and technology cooperation. Since the initiative began in December 2020, the webinars have been held for India and Vietnam, followed by Malaysia in June 2021.



MOD official participating in the Viet Nam Webinar concerning Defense Equipment Transfer (March 2021)

Additionally, the ATLA built a portal site in March 2022 designed to provide a platform for sharing information on the overseas transfer of defense equipment between the public and private sectors, which has long been requested by the defense industry.

The portal site provides information on other countries' procurement systems and Japan's defense equipment transfer system for defense-related companies that are working on overseas transfers.

7 Preventing Leakage of Key Technologies for Defense Equipment

In promoting defense equipment and technology cooperation internationally, the MOD will work to strengthen (1) intellectual property management, (2) technology control, and (3) information security in

order to prevent leakage of key technologies for defense equipment.

 See Section 4-3-2 (4) b (Preventing Leakage of Key Technologies)

Section 6

Initiatives for Economic Security

1 Basic Concept

Economic power is the source of our nation's strength, and strong economic growth is vitally important for maintaining peace and stability in Japan. Furthermore, with the emergence of cutting-edge technologies such as AI and quantum technology, the scope of national security has been rapidly expanding to economic and technological fields as you can see from the fact that countries focus on utilization and management of such technologies in their security policy.

In order to ensure Japan's prosperity amid such a

situation, it is vital to make efforts at a new level from the viewpoint of security while being based on the market-based economic activity. In this case, it is necessary to ensure the autonomy of Japan's economic architecture, attain the superiority and indispensability of Japan, and maintain and enhance international order based on basic values and rules. The comprehensive and effective promotion of economic measures in the achievement of these objectives is the center of economic security.

2 Developments within the Japanese Government

The National Security Secretariat and other related ministries and agencies are to work together to promote various policies regarding economic security issues in Japan through cooperation among industry, academy, and government while pursuing international collaboration.

Moreover, to ensure the autonomy of Japan's economic architecture, attain the superiority and indispensability of Japan, and maintain and enhance international order based on basic values and rules, the Government has been promoting a wide range of efforts¹ that contribute to the promotion of economic security among existing legislation, beginning with strengthening responses based on the Foreign Exchange and Foreign Trade Act.

Furthermore, from the perspective of accelerating such efforts, Japan newly inaugurated Minister in charge of economic security in October 2021. In addition, Economic Security legislation planning office (hereinafter, "legislative planning office") was established at the Cabinet Secretariat, and in May 2022, "Act for the Promotion of Ensuring National Security through Integrated Implementation of Economic Measures" was passed to comprehensively

and effectively promote economic measures related to ensuring security. This act is composed of the enhancement of resilience of supply chain, ensuring the safety and reliability of essential infrastructure, public-private cooperation in respect of leading and important technologies, and non-disclosure of selected patent application.

In addition, based on the Basic Policy on Economic and Fiscal Management and Reform (Cabinet Decision on June 18, 2021), projects designed to develop key advanced critical technologies were launched, a fund aiming to invest in advanced technologies at an eventual scale of 500 billion yen as new frameworks and initiatives to strengthen economic security progress. In this program, focusing on cutting-edge technologies such as AI, quantum technology, the Cabinet Secretariat, the Cabinet Office, and relevant ministries and agencies work together to implement R&D projects, that help meet the country's needs, as well as individual research that help enhance said R&D projects and bring individual technologies to fruition. The results of the research are intended not only for civilian use but also for public use including security.

¹ Japan amended its Foreign Exchange and Foreign Trade Act in 2019 to expand the prior notification requirements for inward direct investment as other countries did. In order to ensure research integrity, the government adopted a policy direction in April 2021 requiring public research funding agencies to confirm the status of foreign funding upon application for research funds among other measures.

3 Initiatives of the MOD

As inter-state competition intensifies in domains that cross between both security and economy, it is extremely important to increase the autonomy of Japan's economy and the superiority and indispensability of Japan through economic security measures such as preserving and fostering cutting-edge technologies, alongside maintaining and strengthening Japan's defense production and technological bases in accordance with the NDGP and other guidelines.

The MOD actively participates in government-wide initiatives by offering its knowledge and needs related to maintaining and strengthening the defense production and technological bases that it has amassed over the years as the government agency in charge of security. Specifically, in addition to dispatching personnel to the legislative preparatory office, the MOD contributes to the resolution of economic security issues

by fundamentally strengthening its internal systems needed to proactively offer its knowledge and needs related to security to government-wide initiatives, such as projects designed to develop key advanced critical technologies, technological information management, and the screening of inward direct investment.

Having said that, in order to ensure Japan's defense, focused initiatives for the maintenance and strengthening of the defense production and technological bases in accordance with the NDGP and other guidelines are needed, while paying close attention to economic security efforts. The MOD is considering all possible means, including legislation, in anticipation of discussions on the establishment of a new NSS, NDGP, etc. based on the current status of existing measures related to the defense production and technological bases, the progress of government-wide initiatives on economic security, etc.

Column

The rivalry between the United States and China for hegemony over economic security: Focusing on export control

The scope of security has been rapidly expanding to the economic and technological field and interstate competition has intensified in the areas that cross between security and economy. In particular, the rivalry between the United States and China for hegemony, especially their move over export control, is worth notable attention. In the background of this situation, while cutting-edge technologies are germinating such as AI and quantum technology, these technologies originating from the civilian domain can have a huge impact on security as technological areas. Both countries, which enjoy advantages in these areas and technologies supporting them, including advanced semiconductors, have an exchange of measures for export control in terms of preventing technological outflows.

The United States has enacted the Export Control Reform Act (ECRA) as a new export control system through the National Defense Authorization Act of 2019. The act and other related measures introduced at the same time include consideration of regulations on emerging and base technologies, the utilization of entity lists, and a review of regulations on military end-users and end-use. It is pointed out that these measures are intended to manage export control in a rational and effective manner against China by expanding controls to technologies that are important in terms of national security because they are cutting-edge or already existing technologies but support the foundations of

particular important industries and ensure advantages of the United States and specifying actors in concern.

Meanwhile, the Export Control Law was enacted and enforced in China in 2020. This law has a wide range of legal purposes for "national security and interests" and provides legal evidence to very strong regulations, including regulations on re-export and extraterritorial application, etc. Subordinate rules and all items to be regulated have yet to be announced. The operation of the law has been largely unclear to this day. For example, the letter of the law have no concrete regulations about re-export regulations and it is said that subordinate rules make it mandatory to get permission from China when exporting goods containing Chinese products to a third country. In this case, corporate activities are subject to significant restriction if the parts made in China are incorporated into the supply chain of the products. In addition, the law stipulates retaliatory measures in case Chinese security and profits are damaged by export control measures. Therefore, the law is, on the whole, more of counter-measures against the United States and a means of exerting an influence on other countries through export control.

It is necessary to continue to closely monitor the move over the export control between the United States and China because it can have some impact on Japanese defense production and technological bases.

1 Military Intelligence Collection

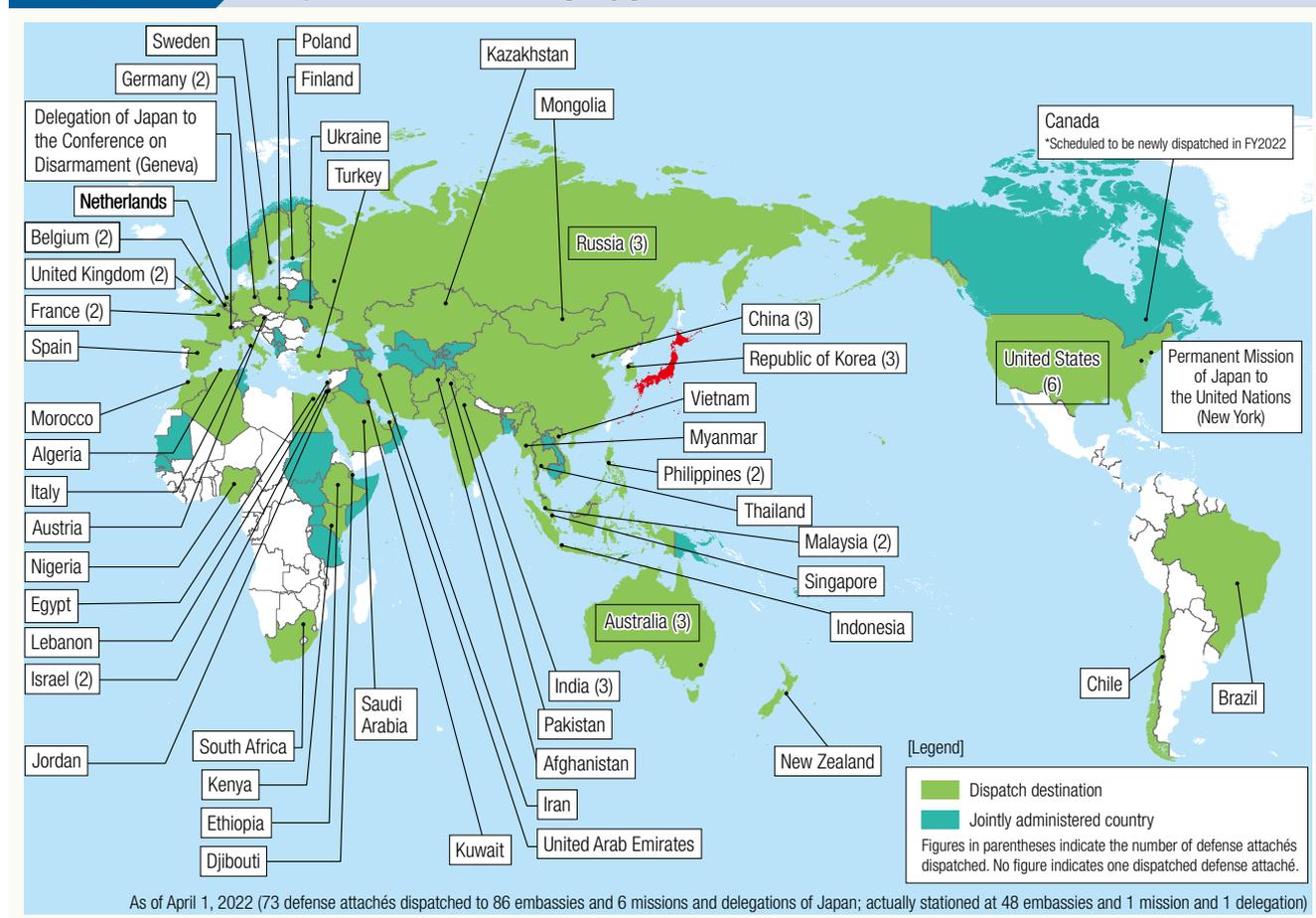
For formulating defense policy accurately in response to the changes in the situation and for operating defense capabilities effectively in dealing with various situations, it is necessary to grasp medium- to long-term military trends in the neighboring countries of Japan and to detect the indications of various situations promptly. To this end, the MOD/SDF is making efforts to collect information swiftly and accurately daily by using various methods.

Examples of intelligence collection means used by the MOD/SDF include: (1) collecting, processing and

analyzing military communication signals and signals emanating from electronic weapons in the air over Japan; (2) collecting, processing, and analyzing data from various imagery satellites (including Information Gathering Satellite (IGS));¹ (3) surveillance activities by ships, aircraft and other assets; (4) collecting and organizing a variety of open source information; (5) information exchanges with defense organizations of other nations; and (6) intelligence collection conducted by defense attachés and other officials.

As for the defense attachés, in FY2021, the MOD

Fig. IV-5-1 Dispatched Defense Attachés [image]



¹ Information Gathering Satellite (IGS) of the Japanese Government is operated by the Cabinet Satellite Intelligence Center. The MOD, along with other ministries and agencies, utilizes the imagery intelligence provided by the IGS.

newly dispatched one defense attaché to New Zealand and Spain respectively, and dispatched one additional attaché to Israel to reinforce cooperation with the Oceania region and improve intelligence collection related to Europe and the Middle East. The MOD is

also planning to newly dispatch one defense attaché to Canada in FY2022 in light of significant development of exchanges with the country, such as in the field of space and joint exercises.

 Fig. IV-5-1 (Dispatched Defense Attachés [image])

Column

Defense Attachés Working around the World

Defense attachés are stationed in Japanese embassies and other diplomatic missions and delegations around the world to gather military information and so on.

In recent years, defense attachés cover a wide range of operations, such as defense exchanges with countries to which they are dispatched, coordination on defense equipment and technology cooperation, and coordination on accepting Self-Defense Forces aircraft for missions and activities. Their roles are expanding year by year.

The Ministry of Defense (the MOD) has been enhancing its defense attachés dispatching structure. Recently, the MOD has newly dispatched/increased defense attachés to Africa, Eastern Europe, the Middle East, and regions along the coast of the South China Sea. Currently, total of 73 defense attachés are dispatched to 48 embassies and 1 mission and 1 delegation. (About 1.5 times as many compared to 49 defense attachés in FY2013.)

Defense attachés work hard successfully every day in many parts of the world as the security environment is becoming

increasingly severe and uncertain. In the face of the recent Russian invasion of Ukraine and last year's military clashes in Afghanistan, Sudan and Ethiopia, defense attachés conduct a wide range of information gathering activities using their military expertise and provide timely information to Japan.



A commemorative photo taken in March 2022 together with senior defense ministry and military officials during a reception at the Embassy of Japan in the United States.

2 Initiatives towards Enhancing Intelligence Capabilities

Under the National Defense Program Guidelines for FY2019 and beyond (NDPG), in order to provide timely and effective intelligence support to policy decision and SDF operations, the MOD/SDF will promote initiatives to comprehensively enhance intelligence capabilities at all stages of intelligence, including gathering, analyzing, sharing and securing of information.

Specifically, in respect of information gathering and analysis capabilities, the MOD/SDF is strengthening its posture for gathering radio wave and image information by developing and improving the capabilities of information gathering facilities, utilizing information gathering satellites, industrial satellites, and similar, and diversifying information gathering means through new technologies, including unmanned aerial vehicles. In addition, by strengthening its posture for gathering

human intelligence, beginning with bolstering the system for defense attachés, strengthening its posture for gathering public information, and enhancing cooperation with allies and similar, the MOD/SDF has been drastically strengthening information gathering and analysis capabilities so that it can fully respond to any needs, including those related to new domains.

In this regard, the MOD/SDF proactively utilizes the latest information processing technology, promotes all-source analysis by fusing a wide variety of information sources together, and successfully develops and connects systems that promote information sharing. In order to respond appropriately to increasingly diversified intelligence requirements, the MOD/SDF is promoting the securing and training of highly capable personnel handling information collection and analysis. Moreover,

the MOD/ SDF is taking steady measures in various directions including recruitment, education, training, and personnel allocation to strengthen comprehensive information collection and analysis capabilities.

With regard to information security, the MOD/SDF is coordinating with relevant offices to make every effort

by such means as education in ensuring information sharing on a need-to-know basis, and in taking preventive measures against information leakage. Also, the MOD/SDF is strengthening counter-intelligence capability within the MOD/SDF by promoting collaboration with relevant organizations.

3 Defense Intelligence Headquarters

1 Mission of the Defense Intelligence Headquarters

The Defense Intelligence Headquarters is the central intelligence agency of the MOD and the largest intelligence agency of Japan. It was established in 1997 in order to develop a framework for sophisticated and comprehensive information gathering and analysis in the increasingly complicated security environment following the Cold War. The Headquarters gathers SIGINT, IMINT, GEOINT, OSINT, etc., and analyzes international and military situations, and other matters related to Japan's swiftly changing security environment.

on international situations that change day by day from diverse perspectives, including military, political and economic factors, based on information received from a wide range of sources including SIGINT, IMINT, OSINT (newspapers, internet, etc.) and opinion exchange with relevant parties.

The Defense Intelligence Headquarters is also strengthening information gathering and analyzing functions in new areas such as space, cyberspace and electromagnetic spectrum. For example, it conducts the collection and analysis of necessary information regarding trends in threats in cyberspace through such means as collecting OSINT and exchanging information with other countries.

In addition, the Defense Intelligence Headquarters increased the number of personnel in FY2022 in order to strengthen its system for gathering and analyzing information on the economic security of other countries.

Results of the Defense Intelligence Headquarters' intelligence service are provided as analysis products to the Prime Minister, the Minister of Defense, the National Security Secretariat established within the Cabinet Secretariat, the Cabinet Intelligence and Research Office, as well as GSDF, MSDF and ASDF units in a timely and appropriate manner to support policy decision and unit operation. The Defense Intelligence Headquarters also actively exchanges information with relevant ministries and agencies and foreign counterparts.

2 Activities of the Defense Intelligence Headquarters

The Defense Intelligence Headquarters is an organization consisting of Ground Self-Defense Force (GSDF), Maritime Self-Defense Force (MSDF) and Air Self-Defense Force (ASDF) personnel, and administrative and technical officials (specialized in language, technology, administration or general office). SDF personnel use the knowledge based on their experience in their unit, whereas administrative/technical officials use their expert knowledge in language, technology, and other fields. They are working together for their mission.

Specifically, they conduct comprehensive analysis

VOICE Voice of a Defense Attaché in Ukraine

Defense Attaché in Ukraine

Lieutenant Colonel TASHIRO Akihiko

While lying on the sofa of my office holding my mobile phone in my hand in the middle of the night on February 24, 2022, I woke to the ring tone of a call from an Embassy official. I intuitively thought, “It seems that the time has come.” It was a message calling for me to immediately evacuate to the official residence of Ambassador because Russia was increasingly likely to attack Ukraine.

Soon after that, I also received a message from local Ukrainian friends. Based on this information, I sent an email to Japanese officials saying that “according to locals, there were explosions in Kyiv, Kharkiv, and Odesa.”

A few hours later, an air-raid alert echoed in Kyiv. The sounds of shelling were gradually getting closer. When I sometimes looked up at the sky, I saw red and orange flashes of shells. And I began to hear gunshots of street fighting from hundreds of meters away. The combat situation got worse minute by minute and things got extremely difficult.

A few days after the fighting began, the war situation got even worse. Amid this situation, I was forced to leave Kyiv. I moved to evacuate on an embassy vehicle taking two bags. When evacuating by vehicle, I heard the sounds of shelling and gunshots from nearby and was in an extremely tough situation where missiles were flying. But all embassy staff, including ambassador, banded together, helped each other, and were able to evacuate safely.

Without any pause, I was able to engage in supplying equipment and other supplies to Ukraine and local activities for transporting supplies together with the Ministry of Defense (the MOD)/ the Self-Defense Forces (the SDF), the Secretariat of the

International Peace Cooperation Headquarters, militaries in many countries, and officials of international organizations.

Through the war, I was able to gain valuable experiences through which I learned many lessons. The biggest lesson learned from the war is that it is so difficult to correctly grasp the local situation from the information gained from government announcements and media reports alone in modern warfare in which “information warfare” using disinformation is waged that it is crucial to judge the local situation, etc. in combination with information directly obtained by local defense attachés. I would like to take my mission as a defense attaché to heart anew and fulfill my duties with pride as a defense attaché who works at the forefront of Japan’s security.

Lastly, I would like to express my sincere condolences to all Ukrainians who died in the line of duty for the defense of Ukraine and many Ukrainians who were killed in the war. I would also like to express my deepest sympathy to many victims of this war.



The author visited the commander of a southern operation unit about a month before the war began. (The author is at the center on the left)

VOICE Voices of Defense Attachés in Various Countries

Defense Attaché at the Representative Offices in Ethiopia, Sudan, South Sudan, and AU Colonel KITAGAWA Masato

In October 2021 the government was seized by the military in Sudan and the Ethiopian situation also got worse in the same time. Social media and press reports were full of uncertain information.



The author making a speech as a representative at a reception in celebration of the anniversary day of the Self-Defense Forces (the SDF) in Ethiopia.

It was impossible to discern the true information amid the government's information regulation and information warfare. Amid this confusion, I made steady efforts to exchange information with military officers from various countries, analyzed information collected by the Japanese embassy, and had close contacts with Japan. Everybody banded together to deal with the difficult situation and to protect the safety of Japanese expatriates in Ethiopia and Japan's national interests. In an age overflowing with information, I strongly felt what I could do on the field and what Japan could do and realized again the responsibility for and pride in my duties.

Defense Attaché in Brazil Colonel KANAI Shigeki

I serve as the third defense attaché in Brazil. Brazil has more than two million Japanese-Brazilian residents and they are so trusted in Brazilian society that Brazilians even say, "Japonês Garantido (Japanese people are trustable)." Japanese-Brazilian soldiers are also highly trusted in the army that some of them are promoted to general and lieutenant general. In addition, Brazil accepts military officers from approximately 50 countries as a major South American country and can obtain valuable information about those countries from the officers. The defense exchanges between Japan and Brazil leave much room for development. Although we are affected by the COVID-19 pandemic, I would like to promote exchanges with a delegation of military officers and the Brazilian military.



At a navy reception with military officers from various countries (author: at the left end)

Defense Attaché in Kenya Commander KATSUMATA Takao

Japan aims to create a Free and Open Indo-Pacific (FOIP), and Kenya, which faces the Indian ocean, is a country of great importance to Japan.



The author making a speech during a ceremony at a Kenya PKO training center

The Japanese government has dispatched many instructors to a PKO training center in Kenya and has provided maritime security education. By making full use of knowledge as a Maritime Self-Defense Force personnel, I work hard every day to help African countries improve their peace-keeping capabilities through those opportunities. Because of the support that we have provided their country, Kenyans have good impressions about Japan. I will make every effort to help further deepen our country's bilateral relationship, sharing information about Japan's good points.

Defense Attaché in Vietnam Lieutenant Colonel HAMAMOTO Michinori

The relationship between Japan and Vietnam is developing in many areas and Vietnam was the destination of Defense Minister KISHI Nobuo's first foreign visit after his inauguration.



A meeting with the Vietnam Air Defense Force and the Vietnam Air Force (The author is the third person from the right)

Defense Minister KISHI Nobuo visited Vietnam even amid the COVID-19 pandemic. The development in defense exchange between Japan and Vietnam contribute not only to bilateral relations, but also to the peace and security of the region and the international community. I strongly feel its importance through the support for naval vessels and for transport aircraft's calls at ports, as well as through the coordination for capacity building cooperation projects in the air rescue domain. In addition, the People's Army of Vietnam has dispatched many students to the National Defense Academy of Japan and assigned graduates of the National Defense Academy to foreign coordination posts. I feel that Vietnam has expectations for a good relationship with Japan and continuous support.

I would like to further deepen "Japan-Vietnam defense cooperation that has entered a new phase" towards realizing a free and open Indo-Pacific (FOIP).

Various activities of the Ministry of Defense (MOD)/ Self-Defense Forces (SDF) are hard to implement without the understanding and cooperation of each and

every person and local governments. Therefore it is necessary to further deepen the trust between regional society and people, and the SDF.

Section 1 Measures to Harmonize with Regional Society and the Environment

The National Defense Program Guidelines for FY2019 and beyond (NDPG) provides that, in recent years, activities, training and exercises of SDF and U.S. Forces Japan (USFJ) are becoming more diverse and defense equipment more sophisticated, and that, as a result, it is becoming all the more important to gain understanding

among and secure cooperation from local governments and residents around the defense facilities consisting of SDF facilities and facilities and areas for use by the U.S. Forces in Japan (USFJ).

Therefore, the NDPG provides that the MOD/SDF will constantly and actively engage in public relations

Column

Emblem Symbolizing Cooperation between the MOD and Regional Society

The MOD/SDF endeavors to harmonize with local communities in many ways, such as promoting understanding of security policies and improving the living environments of people in areas surrounding defense facilities. In July of last year, we created an emblem that would symbolize cooperation between the MOD and regional society, helping Japanese nationals to understand these efforts on a higher level. The entire Ministry makes wide use of

this emblem, such as adding it as a mark on facilities built as part of projects subsidized by the MOD, and using it on pamphlets for various events. We sincerely hope that not only people in areas surrounding defense facilities but also more and more Japanese nationals will become well-informed about our active efforts towards “measures for cooperation with local communities.” We also hope that they will become more familiar with the MOD/SDF.



Emblem symbolizing cooperation between the MOD and regional society

[Concept]

A design of a handshake in the background, a design of two people taking each other's hand in the foreground, and green tones showing the MOD's intention to fully commit itself to its measures with the understanding and cooperation of Japanese nationals.



An example of using the emblem

· A mark on a snow removal vehicle built as part of a subsidized project (Kushiro Town, Hokkaido)



activities with local governments and residents regarding defense policies and activities, and upon fielding units and equipment of SDF or USFJ and conducting training and exercises, the MOD/SDF will make careful and

detailed coordination to meet the desires and conditions of local communities, while sufficiently fulfilling accountability.

1 Supporting Civilian Life

The MOD/SDF conducts activities to support the lives of citizens in a range of fields, in response to requests from local governments and relevant organizations. Such activities contribute to further deepening the trust in the SDF, and provide SDF personnel with pride and confidence.

The GSDF handles the disposal of unexploded ordnance and other dangerous explosives found throughout Japan. In FY2021, there were 1,255 such cases (approximately 31.9 tons). In particular, cases handled in Okinawa Prefecture accounted for approx. 34% of the total cases. The MSDF clears and disposes of underwater mines and other dangerous explosives, in FY2021, there were 2,646 (approximately 4.0 tons).

The SDF not only tries to have interactions with local residents by doing things like opening its camps and

bases to the public to the extent that they do not interfere with unit activities, but also provides transportation and other assistance at a variety of athletic events. In addition, it supports regional medical treatment efforts by providing general medical care at some SDF hospitals as well as conducting urgent transport for emergency patients from isolated islands.

Furthermore, based on national and other policies,¹ the MOD/SDF ensures opportunities for local small and medium-sized enterprises to receive orders, while taking efficiency into account, by such measures as the promotion of separated/divided ordering,² the securing of competition amongst companies within the same qualification and grade divisions,³ and the introduction of the open counter method.⁴

 See Reference 64 (Activities in Civic Life)

2 Cooperation from Local Governments and Other Relevant Organizations for the SDF

(1) Recruitment of Uniformed SDF Personnel and Cooperation with Re-employment Support

Amid the harsh recruitment and employment situation, the cooperation from local governments and relevant organizations is vital to secure highly qualified personnel and to support the re-employment of uniformed SDF personnel who retire at relatively young ages.

(2) Support for and Cooperation with SDF Activities

The SDF camps and bases maintain close relations with regional society, and therefore, various forms of

support and cooperation from the local community are indispensable for the SDF to conduct its diverse activities, including education and training, and disaster relief. Moreover, units dispatched overseas for international peace cooperation operations and other duties receive support and cooperation from the relevant organizations for the procedures involved.

The MOD/SDF are further strengthening cooperation with relevant entities such as local governments, police and fire services in order to ensure immediate and sure activities by the SDF in various contingencies.

1 "The Contract Basic Policy of the Government regarding Small and Medium Enterprises in FY2021" (Cabinet decision on September 24, 2021)

2 For example, this is a method through which grouping of products, etc. takes place when putting up the order for general competitive bidding, and then a successful bidder for each of the groups is decided.

3 This means that out of the bidding participation eligibility categorized into grade A-D, there is competition between grade C or D only, which comprise mostly small and medium enterprises.

4 The "open counter method" means the so-called "public solicitation-type estimate adjustment system," in which when procuring a good or service at or below a threshold value, the tendered item is subjected to public solicitation, resulting in a large number of businesses submitting estimates, instead of adjusting estimates with specified businesses as before.

Fig. IV-6-1-1

Work to Develop Regional Cooperation

1 Measures concerning coordination with local governments for smoothly implementing projects

Coordination with local governments regarding the reorganization, etc., of SDF units and training, etc., of the U.S. Forces

2 Measures concerning responses to incidents and accidents wherein the SDF, etc., are involved

Required cooperation in collaboration with the SDF, etc., such as information provision to local governments

3 Measures for the purpose of taking effective actions for various contingencies

Required support for those such as SDF units and local governments under large-scale disasters or other events and participation in training

4 Measures with the aim of obtaining understanding of the defense policy in general

Holding of sessions to explain the content of Defense of Japan and seminars on defense issues, targeting local governments and residents

3 Activities for Securing Understanding and Cooperation of Municipal Governments and Local Residents

Regional Defense Bureaus established in eight locations nationwide make efforts to build cooperative relationships with their respective local communities, through collaboration with SDF units and Provincial Cooperation Offices. In FY2021 the bureaus provided local communities with explanations on a variety of training including Japan-U.S. bilateral training, development of SDF facilities on Mageshima, the plan to deploy Ground Self-Defense Force (GSDF)

V-22 Ospreys at KYUSHU-SAGA International AIRPORT, etc. They also implemented measures to promote understanding of the defense policy in general by providing all prefectures and municipalities with explanations on the Defense White Paper and also by continuing to hold online seminars that began the previous fiscal year on defense issues in light of the COVID-19 crisis among other things.

 See Fig. IV-6-1-1 (Work to Develop Regional Cooperation)

4 Measures to Promote Harmony between Defense Facilities and Surrounding Areas**1 Features of Defense Facilities and Projects Related to Harmony with the Surrounding Areas**

Defense facilities are diverse in their use, and often require large volumes of land. In addition, as of January 1, 2022, approximately 29% of the land area and 30 of the 76 facilities and areas (for exclusive use) of the USFJ are jointly used by the SDF in accordance with the Japan-U.S. Status of Forces Agreement, with the purpose to enhance the diversity and efficiency of Japan-U.S. bilateral training and exercises. Meanwhile, problems related to restricted establishment and operations of defense facilities have emerged due to the urbanization of areas around many of the defense facilities. Also,

another problem is that frequent aircraft operations such as takeoffs and landings cause noise and other issues, impacting the living environment of local residential communities.

With that being said, defense facilities, as the foundation that supports the defense capabilities of Japan and the Japan-U.S. Security Arrangements, are indispensable for our country's security. Therefore, in order for the facilities to exert their full function, it is necessary to maintain conditions for constant and stable utilization by ensuring harmony between the defense facilities and the surrounding areas as well as obtaining the understanding and cooperation of the local residents.

For that purpose, the MOD has taken measures to prevent, reduce or mitigate aircraft noise and other

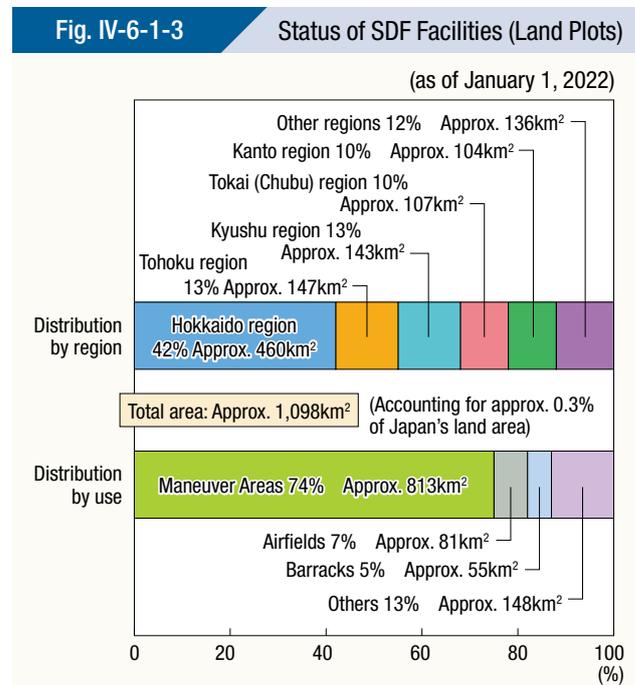
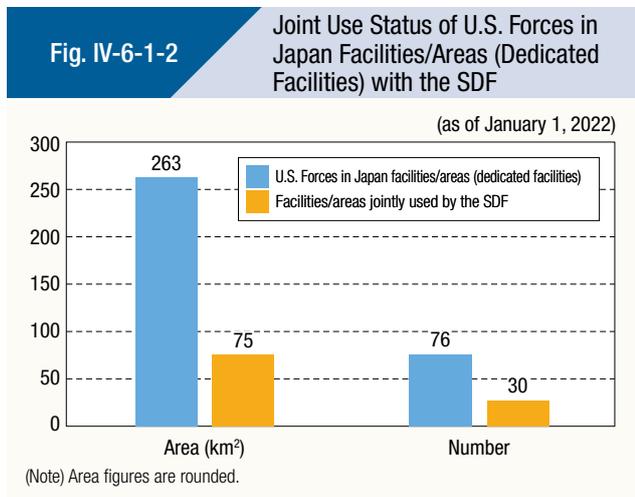
impacts caused by activities of the SDF or the USFJ, or by the establishment/operations of airfields and other defense facilities in the surrounding areas since 1974 based on the Act on Improvement of Living Environment of Areas Around Defense Facilities (Living Environment Improvement Act), etc.

Taking into consideration the requests from the relevant local governments, the MOD partially revised the Living Environment Improvement Act in 2011, and conducted a review to enable the Specified Defense Facilities Environment Improvement Adjustment Grants to be applied to so-called soft projects, such as aid for medical expenses. In addition, the MOD added defense

facilities to be eligible for these grants. Focused work is also underway to provide soundproofing for housing.

Regarding the Specified Defense Facilities Environment Improvement Adjustment Grants, the MOD has implemented initiatives such as the PDCA Cycle process since April 2014, aiming to increase the effectiveness of these grants.

In response to the requests by the relevant local governments, the MOD continues to study how the measures to harmonize defense facilities and surrounding areas should be in an attempt to make them more suitable, effective and efficient, in consideration of the severe fiscal situation.



Note: 1. Numbers may not add up to 100 due to rounding.
2. Based on the "Guidelines for Regional Representation," the regional block classification was changed to Category I as of January 1, 2022.

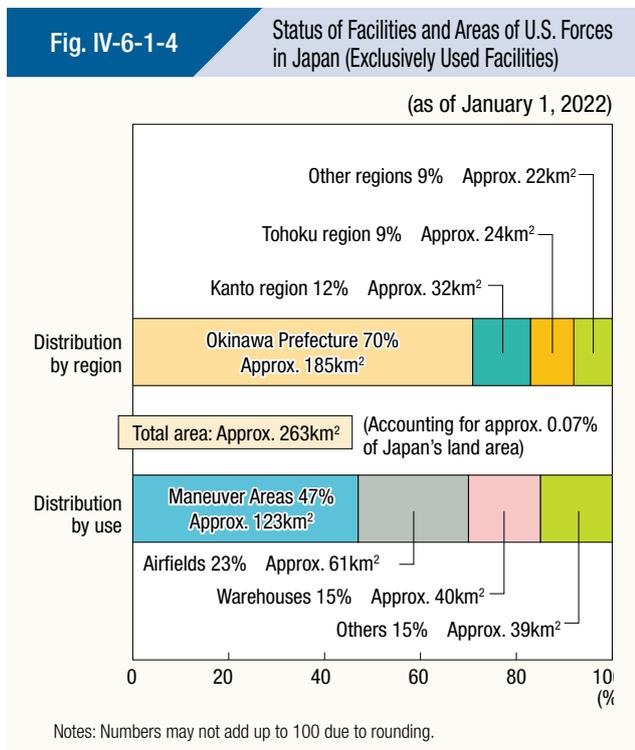


Fig. IV-6-1-5 Costs for Measures in Areas Around Defense Facilities in FY2022 (Contract Base)

(Unit: 100 million yen)

Project	Mainland	Okinawa
Disturbance prevention projects	115	15
Noise prevention projects	545	147
Measures related to relocations	50	1
Subsidized projects for stabilizing people's lives	231	136
Road improvement projects	59	24
Specified Defense Facilities Environment Improvement Adjustment Grants	194	34
Other projects	13	6

See Fig. IV-6-1-2 (Joint Use Status of U.S. Forces in Japan Facilities/Areas (Dedicated Facilities) with the SDF)
 Fig. IV-6-1-3 (Status of SDF Facilities (Land Plots))
 Fig. IV-6-1-4 (Status of Facilities and Areas of U.S. Forces in Japan (Exclusively Used Facilities))
 Fig. IV-6-1-5 (Costs for Measures in Areas Around Defense Facilities in FY2022 (Contract Base))
 Reference 65 (List of U.S. Forces Japan Facilities/Areas (including joint use facilities))

2 Efforts to Develop Understanding and Cooperation Concerning the Stationing of the USFJ

Amid the increasingly severe security environment surrounding Japan, maintaining the presence of the USFJ and its readiness is vitally important for ensuring the security of Japan.

For stable stationing of the USFJ, it is essential to obtain the understanding and cooperation of the local governments and residents in the vicinities of defense facilities.

For this purpose, the MOD will work to share this recognition with the United States at various levels including the Japan-U.S. Defense Ministerial Meeting. The ministry will also constantly take various measures, including coordination for unit operation of the USFJ with the local governments and other parties, provision of subsidies pertaining to the USFJ realignment, prompt information provision to the local government in a case of incident or accidents, and exchange promotion between the USFJ and local residents.

(1) Coordination for Unit Operation of the USFJ with the Local Governments, etc.

The MOD is working to promote local understanding of the maintenance of USFJ facilities and unit operations through coordination, including prior explanation to the relevant local governments and residents at every occasion of USFJ realignment, training, unit deployment, new equipment deployment, etc.

(2) Grants, etc., to Promote the USFJ Realignment

During a period of time before and after the implementation of the USFJ realignment⁵ (10 years

in principle), realignment grants⁶ are provided to help cover the expenses of projects,⁷ which contribute to improving the convenience of the residents' lives in local municipalities affected by the realignment and stimulating the local industries. These grants are provided in accordance with the progress of the realignment, after the Defense Minister designates the specified defense facilities and neighboring municipalities affected by the realignment.

As of April 2022, ten municipalities for eight defense facilities are eligible to receive the realignment grants. In order to promote the realignment, additional measures are taken with budgetary provision.

See Reference 66 (Outline of Measures to Promote Harmony Between Defense Facilities and Surrounding Areas)

(3) Ensuring Safety of Operations of the USFJ

Ensuring the safety of local residents is of prime importance in USFJ operations, and no accident or incident must occur.

In case of incidents arising with respect to U.S. military aircraft, such as crashes, emergency landings⁸, falling or missing parts, or similar, the MOD ensures the thorough safety management and prevention of a reoccurrence are conducted while also swiftly requesting information from the U.S. side. As well as immediately passing on the information obtained to relevant ministries and agencies, the MOD has been taking measures to enable swift and appropriate compensation of victims of an accident or incident.

Considering anxiety and concerns among local residents, Japan has been fully communicating its approach to the U.S. side including at the top and ministerial levels. The two countries closely cooperate to secure safe operation as the top priority.

The MOD is also concerned about accidents/incidents due to drinking caused by U.S. Forces military personnel and others and has requested the U.S. side on multiple occasions to reinforce official discipline and personnel education.

The United States has also taken measures for its part, putting in place its guidelines for off-duty action (liberty policy), including measures such as alcohol

⁵ Under the Act on Special Measures for Smooth Implementation of the Realignment of the United States Forces in Japan, changes in the composition of naval fleets (replacement of the aircraft carrier, at Commander Fleet Activities Yokosuka, with a nuclear aircraft carrier) that integrally operate with air wings subject to the realignment are treated in the same way as the realignment.

⁶ Approximately 4.1 billion yen in the FY2022 budget

⁷ As stipulated in Article 2 of the Enforcement Ordinance of the Act on Special Measures for Smooth Implementation of the Realignment of the United States Forces in Japan, there are 14 specific projects including education, sports, and cultural projects.

⁸ A prompt landing made to avoid hazard in the event an anomaly occurs that impacts the aircraft's navigation

restrictions at nighttime as well as curfews applying to U.S. Forces personnel ranked below a certain rank. Both the countries will continue cooperation to prevent recurrence of incidents related to drinking.

(4) Promoting Exchange between the USFJ and Local Residents

The MOD holds a Japan-U.S. exchange program to deepen mutual understanding between Japan and the United States with the understanding and cooperation of the local governments and USFJ. Under the program, residents living near USFJ facilities and areas together with USFJ personnel enjoy sports, music and cultural exchanges.

The USFJ also has initiatives to deepen mutual understanding with people of the local communities, which include opening up of its bases (Friendship day) and information provision through websites and social media.

(5) Other Measures (Including Measures Pertaining to the SDF)

(1) Compensation for Fisheries

The MOD defines the confined water for training, etc.

carried out by the SDF or the USFJ using water surface based on laws or a contract and compensates for losses incurred from the restriction.

(2) Base Subsidy, etc.

The MOD provides cooperation by doing such things as providing various information also for the subsidy for municipalities where national defense facilities are located (“Base Subsidy”), and the Adjustment Grants for municipalities where defense facilities are located (“Adjustment Grants”), both of which are under the defense facilities-related subsidy system under the jurisdiction of the Ministry of Internal Affairs and Communications.

The Base Subsidy has been established considering that the facilities used by the U.S. Forces and the SDF such as airports have a significant impact on municipal finance. The subsidy has a nature of substituting for fixed property tax and is granted to municipalities where such facilities are located.

The Adjustment Grants are provided to municipalities where USFJ properties are located as such properties are exempt from fixed asset tax, and U.S. Armed Forces personnel and civilian employees are exempt from municipal tax, etc.

5 Participation in National Events

The SDF conducts Guard of Honor ceremony including line-up, gun salutes and others for the Emperor, state guests and others at national events. When national

guests and official guests from other countries visit Japan, Guard of Honor ritual at welcoming ceremony and other events is indispensable as diplomatic protocol.

6 Cooperation for Tokyo 2020 Olympic and Paralympic Games

1 Surveillance to Ensure Security, etc.

Based on the basic security strategy for the 2020 Tokyo Olympic and Paralympic games decided upon at a

meeting of the Security Board, the MOD/SDF engaged in various missions, such as airspace surveillance, including over areas around the competition venues, to help ensure safe and smooth preparation, operation, and



REFERENCE: Tokyo 2020 Olympic Games Special Page
URL: <https://www.mod.go.jp/j/publication/olympic/index.html>



MOVIE: Blue Impulse jets flight during the Paralympics Games (compilation)
URL: <https://youtu.be/TFKF5pdiMSU>



continuity for the Games.

2 SDF Athletes in Action

In addition to the nine sports the MOD/SDF has traditionally trained athletes in (wrestling, boxing, judo, shooting, weight lifting, archery, track and field, swimming, and modern pentathlon), it established special physical education training courses for women's rugby and canoeing starting from FY2017, training and strengthening athletes in these 11 sports to promote the development of SDF athletes for the Tokyo 2020 Games.

As a result, 17 SDF personnel from the SDF Physical Training School competed in ten events at the Olympics, winning five medals (three gold, one silver, and one bronze), the most in the school's history.

3 Cooperation in Olympic Ceremonies and Operations

The MOD/SDF, at the request of the Tokyo Organising Committee of the Olympic and Paralympic Games, gave a demonstration flight by Blue Impulse aircraft and a performance by the SDF band at the Olympic flame arrival ceremony, cooperated with the Organising

Committee on cybersecurity measures, and offered use of GSDF Asaka Camp and other SDF facilities free of charge ahead of the Games.

During the Games, approximately 8,500 personnel provided cooperation on the hoisting of the national flag and other flags, medical services at the venue for shooting sports, marine rescue in sailing, control in and outside of venues, and the operation of the archery, shooting and modern pentathlon events.

Blue Impulse aircraft also gave demonstration flights on the opening days of both the Tokyo 2020 Olympic and Paralympic Games.



Blue Impulse flying demonstration over Tokyo

7 Support for Antarctic Research

The SDF has been providing transportation for personnel and supplies and other cooperation for the scientific research in Antarctica conducted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) since 1965, when Antarctic research was resumed, with the icebreaker JS Fuji, since 1983 with icebreaker JS Shirase, and since 2009 with the second-generation icebreaker JS Shirase.

For the 63rd Antarctic Research Expedition, from November 2021 to March 2022, the SDF provided support for the transportation of a total of 135 people and approximately 1,140 tons of supplies, support for sea and land observations, and support for base construction.



JS "Shirase" navigating in ice-covered waters at night

 See Reference 67 (Support for Antarctic Research)



MOVIE: 62nd Antarctic Research operations

URL: <https://youtu.be/aYR4gbB6fwg>

8 Civil Engineering Consignments from Third Parties

The SDF receives consignments of civil engineering projects, etc., conducted by the state and local governments when the projects conform to the purpose of the SDF training. The GSDF, since its establishment, has received 8,271 consignments of civil engineering

projects from third parties.

The GSDF is contributing to local disaster prevention countermeasures and strengthening cooperation with local communities through these activities.

 See Reference 68 (External Construction Project Achievements)

9 Other Initiatives

1 Response to Cases of Interference against SDF and U.S. Forces Aircraft by Laser Irradiation and Kite Flying

Cases of interference by laser irradiation and kite flying against the SDF and U.S. Forces aircraft in flight have been occurring frequently. These are extremely dangerous and malicious acts that may disrupt a pilot's ability to operate aircraft and result in a catastrophe such as a crash. Therefore, the MOD disseminates information regarding the risks involved in these acts to local residents by putting up posters and requests their cooperation in reporting to the police while closely cooperating with relevant local governments. Additionally, the Ordinance for Enforcement of the Civil Aeronautics Act was revised in December 2016, making these interference acts subject to regulation as well as fines and other penalties.

of the end of March 2022, 149 SDF facilities where major SDF Headquarters, etc., are located, and 30 USFJ facilities and areas have been designated for the prohibition.

 See Reference 69 (A List of the Defense-related Facilities Designated under the Drone Act)

3 Response to the Act on Review and Regulation of Real Estate Usage

In accordance with a statement by the National Security Strategy, established in December 2013, that Japan will review issues related to the use, etc. of land in areas such as areas surrounding defense facilities from a national security viewpoint, the MOD has, since FY2013, been conducting research to secure a systematic understanding of the situation of land ownership in areas surrounding defense facilities. On July 17, 2020, the Government of Japan issued the Basic Policy on Economic and Fiscal Management and Reform 2020 by Cabinet Decision, where it was stated that “from the standpoint of national security, the government will strive to ascertain the status of property ownership through information gathering and other means by the relevant government offices, and the government will take the necessary measures after considering how best to use and manage property.” According to this statement, the Cabinet Secretariat reviewed the issues based on, among other things, recommendations from the Advisory Panel on assessment of the actual state of land use, etc. After this consideration, the Bill on Review of Real Estate Ownership and Regulation of Its Use near Sensitive Facilities and on Border Islands was approved by Cabinet Decision on March 26, 2021 and submitted to the 204th Diet. The bill was passed and ratified on June 16 the same year, and the Act was promulgated on June 23. On the situation where the security environment is

2 Response to Small Unmanned Aerial Systems Mainly Drones Flying over Defense Facilities and Surrounding Airspace

In recent years there have been terror attacks overseas (including attempted ones) using small drones, including commercial drones, some of which are targeted at military facilities. Given such a situation, there is a concern that drone terror attacks on the SDF/USFJ facilities and areas can also happen in Japan, and if these facilities are endangered, the function as foundations to defend our nation can be seriously affected. To address such a concern, the Act on Prohibition of Flight of UASs around and over Key Facilities commonly known as the “Drone Act” was enforced on June 13, 2019, to prohibit small drones from flying over the SDF/USFJ facilities and areas designated by the Minister of Defense. As

becoming more severe and uncertain, the Act authorizes the Prime Minister to designate areas surrounding sensitive facilities and on remote islands near national borders to be protected against interference from the land, etc., and to investigate and if necessary regulate land use in the areas. This Act has great significance for the purpose of fully ensuring the functions of defense facilities, which are the foundations of national defense. The Basic Policy on Economic and Fiscal Management and Reform 2021 (the “Basic Policy 2021”) issued on

June 18 by Cabinet Decision clearly states that “[t]he Government will promptly establish an enforcement system for the Act on Review and Regulation of Real Estate Usage, and will promptly and steadily conduct a review of the status of real estate usage in ‘Monitored Areas,’ etc., after the Act comes into effect.” The MOD will establish a system to cooperate with the review of the status of real estate usage conducted by the Cabinet Office and will work to respond appropriately upon doing so.

Section 2

Responding to Environmental Issues

A sense of crisis regarding the sustainability of the global environment has been mounting internationally. In 2015, countries around the world promoted several initiatives, such as accepting the adoption of the Sustainable Development Goals (SDGs) at the United Nations, and the Paris Agreement, which is an international framework concerning climate change.

Marine plastic pollution and climate change were important topics at the G20 Summit held in Osaka in June 2019. Just before the summit, the first Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth was held with the attendance of relevant ministers of the participating countries.

Japan also formulated the Fifth Basic Environment Plan at the cabinet in 2018 and has been working to realize a sustainable society. At the SDG Summit in

September 2019, Japan expressed the intention to further accelerate initiatives in Japan and abroad by the next SDG Summit.

In addition, the Plan for Global Warming Countermeasures and the Climate Change Adaptation Plan were approved by Cabinet decision in October 2021, and specific climate change measures aimed at achieving carbon neutrality by 2050 and the FY2030 objectives are underway.

In response to the acceleration of domestic and overseas initiatives, the MOD, as part of the government, also needs to contribute to solving environmental problems, while at the same time implementing measures with more focus on the coexistence of SDF/USFJ facilities and areas with surrounding areas.

1 Efforts Related to the MOD/SDF Facilities

As a member of the government, the MOD has complied with the laws and regulations related to the environment and strived to be thorough in protecting the environment and to reduce the burden on the environment. It will work to further promote initiatives regarding the environment under the “Policy of the Ministry of Defense on Consideration for the Environment.” In FY2021, the MOD reorganized the Bureau of Local Cooperation in order to develop the organization so as to be able to centrally and effectively address environmental issues by establishing the Environmental Policy Division in the reorganized bureau to be responsible for the overall environmental policy of the MOD/SDF, and plans to continue working to promote further measures.

1 Setting Up the MOD Climate Change Taskforce

The growing trend toward viewing climate change as a security issue is spreading among defense organizations

globally, including the UN Security Council. In May 2021, the MOD set up the MOD Climate Change Taskforce (hereinafter referred to as the “Climate Change Taskforce”) chaired by the State Minister of Defense. It has been tasked with evaluating and analyzing the impact of climate change on Japan’s security, and considering from a long-term perspective a wide range



Discussion in the Climate Change Taskforce



REFERENCE: Initiatives concerning environmental measures

URL: https://www.mod.go.jp/j/approach/chouwa/kankyo_taisaku/index.html

Fig. IV-6-2-1

FY2022 List of Facilities That Have Introduced Renewable Energy (Top 10 Facilities by Estimated Energy Consumption on a Contract Basis)

	Name of facility, etc.	Estimated energy consumption	Renewable energy ratio
1	ASDF Iruma Air Base	21,068,100kWh	100%
2	ASDF Hamamatsu Air Base	19,821,508kWh	100%
3	ASDF Chitose Air Base	14,806,200kWh	30%
4	GSDF Camp Mishuku	13,815,119kWh	30%
5	ASDF Gifu Air Base	12,984,363kWh	100%
6	GSDF Camp Kasumigaura	11,645,800kWh	100%
7	GSDF Camp Jujo	11,318,000kWh	60%
8	ASDF Tsuiki Air Base	9,935,616kWh	100%
9	MSDF Shimohusa Air Base	9,185,262kWh	100%
10	ASDF Ominato Sub Base	8,408,439kWh	100%

of measures needed to ensure that the MOD/SDF is able to continue to properly fulfil its assigned role and missions. The MOD aims to respond to climate change while simultaneously maintaining and strengthening its defense capabilities, and will compile a strategy document based on discussions by the Climate Change Taskforce.

2 Procuring Renewable Energy Electricity

The MOD/SDF, being responsible for 250,000 SDF personnel, operating facilities and various equipment all around Japan, and as the largest consumer of electricity among government institutions (accounting for approximately 40% of total government consumption), has actively promoted the procurement of electricity generated by renewable energy sources (hereafter referred to as “renewable energy electricity”) for MOD/SDF facilities since FY2020 in order to contribute to reducing greenhouse gas emissions and other goals.

In FY2022, the MOD held 964 contracts to procure electricity for its facilities, etc. nationwide, of which 291 facilities, etc. procured electricity containing renewable energy electricity. Furthermore, 199 procured 100% of their electricity from renewable energy sources. The expected amount of renewable energy electricity procured in FY2022 is 320 million kWh (annual electricity consumption of more than 70,000 general households). It means that approximately 25% of all electricity expected to be used by the MOD/SDF (approximately 1.29 billion kWh) in FY2022 will be procured in the form of renewable energy electricity.

As a member of the government, the MOD will continue to make efforts to raise the proportion of renewable energy electricity.



Fig. IV-6-2-1 (FY2022 List of Facilities That Have Introduced Renewable Energy (top 10 Facilities by Estimated Energy Consumption on a Contract Basis))

3 Balancing Renewable Energy Electricity and Security

The introduction of renewable sources of energy, including wind power, is being promoted in response to the issue of climate change, and the number of wind power generation facilities is expected to increase moving forward. Depending on the location and height of these wind power generation facilities, they may potentially impact the activities of the SDF and U.S. Forces in Japan by blocking radio waves emitted by warning and control radars and making it difficult to detect aircraft and missiles, etc.

To address these issues, the MOD/SDF coordinates with project operators and other related parties meticulously from the early stages of project planning. The MOD/SDF will continue to promote measures to achieve balance between renewable energy and security while avoiding impacts on the activities of the SDF and U.S. Forces in Japan caused by the installation of wind power generation facilities.

4 MOD's Action Plan for PFOS Disposal

The MOD has established the Action Plan for PFOS Disposal regarding aqueous film-forming foam, etc. containing PFOS and has been replacing and disposing of said foam, etc. With the exception of select equipment, such as fire extinguishing equipment subject to alteration, the replacement and disposal work was completed by the end of FY2021, and the MOD is swiftly proceeding with replacement and disposal in

naval vessels with the goal of completing it by the end of FY2023.

In addition, a water quality survey of fire extinguishing equipment water tanks conducted in FY2021 at bases that used or may have used aqueous film-forming foam

containing PFOS in the past detected PFOS and other substances in the water from some tanks. The MOD intends to take appropriate measures based on the results of the survey.

2 Efforts on the USFJ Facilities and Areas

USFJ is committed to appropriate environmental management to protect the environment in the surrounding areas and to secure the safety of U.S. military personnel and residents in the surrounding areas according to the Supplementary Agreement on Cooperation in the Field of Environmental Stewardship and the Japan Environmental Governing Standards (JEGS) established by USFJ.

1 Efforts to Save Utilities

In USFJ facilities and areas, efforts are made to save utilities, which include changes to energy-efficient heating/ventilation/air-conditioning equipment; installation of motion sensors for lights-out during absence; installation of solar panels; reduction of the period to use cooling/ heating equipment and review of the preset temperature; and control of lighting and lights-out for night lighting, for example.

2 Responding to Issues concerning PFOS

The government is working together to advance efforts to address the issues surrounding PFOS, such as setting provisional target values for tap water and water

environments and the rapid replacement and disposal of aqueous film-forming foam in the possession of the SDF and fire departments. USFJ is also in the process of replacing the aqueous film-forming foam in its possession, and in September 2021, the U.S. Marine Corps in Okinawa issued a press release stating that it had completed the replacement work at all Marine Corps facilities located in Okinawa. In addition, the government, together with the relevant local governments and in accordance with the supplementary Agreement on Cooperation in the Field of Environmental Stewardship, entered the facilities at Futenma Air Station during an aqueous film-forming foam spill in April 2020 and at an Army POL depot during a water spill containing PFOS and other substances in June 2021. Furthermore, in light of the August 2021 incident in which the U.S. side treated water containing PFOS and other substances at Futenma Air Station and discharged it into the public sewage system, the MOD immediately responded, collecting the remaining water containing PFOS and other substances in underground water tanks in the hangers at the air station and disposing of it. The MOD will continue to cooperate closely with the relevant ministries and agencies, related local governments, and the U.S. side, and take necessary measures.

Section 3

Public Relations Activities, Public Records and Archives Management, Information Disclosure, and Related Activities

1 Various Public Relations Activities

As the activities of the MOD/SDF cannot be carried out without the understanding and support of the Japanese people, it is important to conduct comprehensible publicity activities in a proactive manner for gaining the trust and cooperation of the public.

Hence, the MOD/SDF will be more proactive in undertaking public relations activities in a variety of ways that are easily comprehensible to the public.

In addition, given that the understanding and support from foreign countries are also of utmost importance for the SDF to conduct its operations successfully, it is essential that the MOD strengthens efforts to provide information to the international community about MOD/SDF initiatives, including SDF activities abroad.

 **See** Reference 70 (“Public Opinion Survey on the Self Defense Forces and Defense Issues” (excerpt) (Public Relations Office of Cabinet Office))

1 Providing Information Both Domestically and Internationally

The MOD/SDF conducts active PR activities through official websites, social media (Social Networking Services) and video distribution, utilizing the Internet.

The MOD has also been making great efforts to furnish accurate information in a more extensive and timely fashion, by creating brochures and PR videos, as well as providing assistance in editing the PR magazine “MAMOR” and cooperation on media coverage.

Furthermore, as MOD/SDF’s activities reach out

worldwide, it is significant to accurately publicize those activities to the international community and secure the understanding and trust of the respective countries. As efforts for this purpose, the MOD/SDF is providing information in English, and in particular is further upgrading the MOD English website and actively distributing timely, easy-to-understand information through social media in English. Moreover, the MOD/SDF engages in PR activities towards the international community by various means such as providing coverage opportunities for the overseas media, producing an English version of the Defense White Paper, and issuing the English PR pamphlet “Japan Defense Focus(JDF).”

2 Events and PR Facilities

The MOD/SDF conducts activities to widely inform nationals of the current circumstances of the SDF. These activities include the GSDF Fuji Fire Power Exercise, cruises to experience MSDF vessels, and Blue Impulse demonstration flights by the ASDF. In addition, at camps and bases throughout the country, events including equipment exhibitions and unit tours are held on occasions such as the anniversary of the unit’s foundation. Furthermore, as part of the commemoration of the SDF anniversary, the SDF Marching Festival is held every year.¹

In addition, the GSDF, MSDF, and ASDF conduct a troop review, a fleet review, and an air review respectively every year. In 2021, 13 units comprised of about 800 SDF



MOVIE: Video of the 70th anniversary of the establishment of the GSDF

URL: <https://youtu.be/QKGQPy1Q8jc>



MOVIE: SDF Anniversary Review 2021

URL: https://youtu.be/Pc_ry3D0W1A



¹ In FY2021, various events were canceled or conducted in altered forms as in FY2020 due to the COVID-19 situation. Notably, the JSDF Music Festival was canceled for the second consecutive year, and as an alternative, the “Three Self-Defense Forces Joint Concert for Children and Youths” was held at the Tokyo Opera City Concert Hall.

Column Regarding the Review 2021

On November 27, 2021, the MOD/SDF held the GSDF Review 2021 at GSDF Asaka Camp, with Prime Minister Kishida, the Supreme Commander of the SDF, performing the inspection.

In view of the change in the environment surrounding the MOD/SDF in recent years, considering that a large-scale review could cause trouble to units, etc. fulfilling their duties, the review was held without spectators just like the air review in the previous year, with mainly the reviewer giving instructions and inspecting the units.

In his inspection of the units, Prime Minister Kishida enjoyed a talk with personnel engaged in the transportation of Japanese



Prime Minister Kishida is enjoying a talk with an SDF personnel (sitting in a circle)

nationals overseas (TJNO) from Afghanistan, disaster dispatch activity in Atami and the activity of the SDF large-scale vaccination center in Tokyo. He also test-ran a Type-10 tank and a Type-16 mobile combat vehicle—the GSDF's major equipment.

The review gave Prime Minister Kishida the very precious opportunity to further deepen his understanding of the GSDF and also inspired SDF personnel to be aware of their mission and to have higher morale.

A movie of the review is streamed on the GSDF's online public relations channels so that the Japanese public can see it.



An exhibition of equipment (Prime Minister Kishida test-ran a Type-10 tank)

personnel participated in the troop review conducted at GSDF Camp Asaka, which was held without spectators as was the air review the previous year.

The MOD/SDF also actively opens PR facilities to the public. For instance, the number of visitors on the facility tour at the PR facilities in the MOD at Ichigaya district (Ichigayadai Tour) reached about 468,500 as of the end of March 2022. The former Imperial General Headquarters underground bunker in the same area was opened to the public in August 2020. Each SDF service also has PR facilities and archives, and other facilities open to the public.

3 Enlistment Experience Programs

The MOD/SDF offers SDF Life Experience Tours for undergraduate and graduate students as well as women² and Enlistment Experience Programs for groups, companies and other organizations.³ These programs are intended to promote participants' understanding of the SDF by offering opportunities to experience the daily life and training of the SDF, as well as to have direct contact with SDF personnel.

² Public invitations to SDF Life Experience Tours can be accessed from the MOD/SDF website.

³ Tours to experience the everyday life in the GSDF, MSDF, and ASDF. They are implemented upon request from private companies and other organizations through the Provincial Cooperation Offices.

2 Initiatives for Public Document Management and Information Disclosure

1 Necessity of Proper Management of Public Records and Archives and Proper Operation of the Information Disclosure System

Democracy, which is the most important system of the country, is founded on the principle that the public has access to accurate information, thereby making appropriate judgment and exercise of sovereignty. Administrative documents held by the government are of the utmost importance for the public's access to accurate information. For this reason it is an important responsibility for the government, including the MOD/SDF, to manage information in an appropriate manner and appropriately respond to the public's information disclosure requests.

2 Promotion of Proper Management of Public Records and Archives, and Proper Operation of the Information Disclosure System

The MOD/SDF takes it seriously that the issues over daily reports in South Sudan and Iraq brought about the public's distrust in the MOD/SDF.

The MOD/SDF is making full efforts to prevent recurrence based on the "Measures for Ensuring Appropriate Management of Public Records" (Adopted by the Ministerial Council on the Management of Administrative Documents and Related Matters on July 20, 2018), which compiles measures necessary for proper management of public records and archives by the entire government. The MOD/SDF is also working for proper management and response to requests for information disclosure by reforming the awareness of personnel and the organization culture, enhancing the checking framework, for example.

 See Reference 71 (Record of Information Disclosure by the Ministry of Defense (FY2021))

3 Initiatives for Policy Evaluation

1 Engagement in Policy Evaluation

The MOD has been conducting the evaluation of various policies based on its policy evaluation system. In FY2021, the MOD conducted policy evaluations of research and development (R&D) programs and projects concerning Special Taxation Measures as well as the major policies and programs of the NDPG and the MTDP.

2 Promotion of Evidence-Based Policy Making (EBPM)

The MOD is promoting initiatives for EBPM in coordination with its policy evaluation system, etc. under the Director-General for Evidence-based Policymaking, who is in charge of EBPM initiatives.

3 Initiatives for the Personal Data Protection System

In light of respecting individual rights and interests in line with the Act on the Protection of Personal Information, the MOD takes measures to manage the security of the personal information under its control and responds appropriately to requests for the disclosure of such information.

4 Appropriate Use of the Whistleblower Protection System

The MOD sets up a system to handle whistleblowing made by its officials, employees and outside workers, establishing internal and external contact desks to deal with whistleblowing and to protect whistleblowers.

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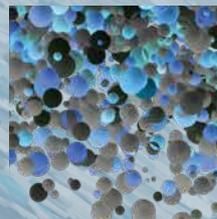
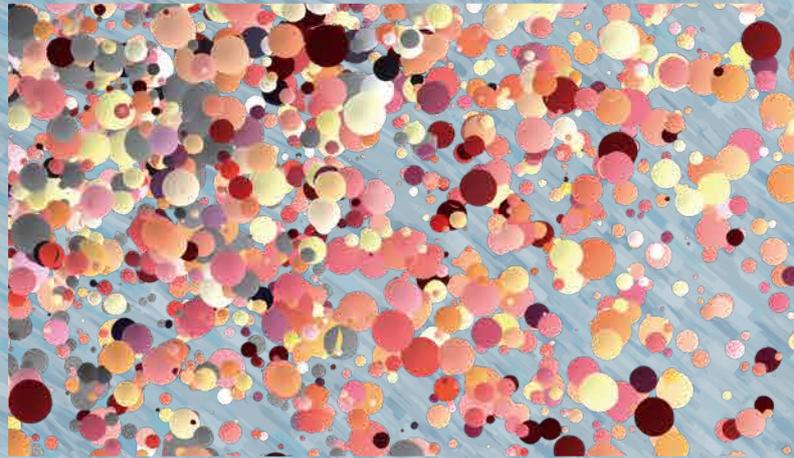
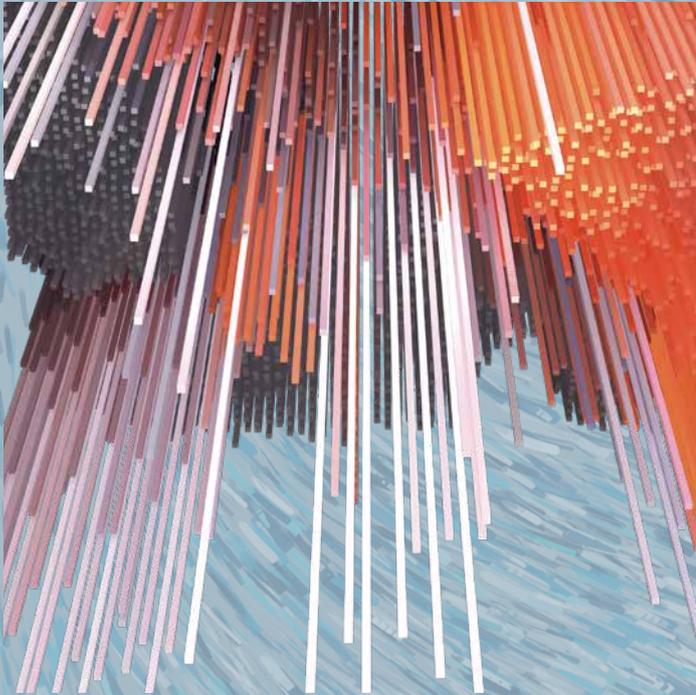
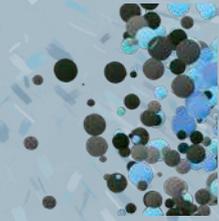
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