Section

# New Medium Term Defense Program (MTDP), etc.

# Outline of the MTDP (FY2019–FY2023)

# Background of Formulation of the MTDP (FY2019-FY2023)

As the term of the MTDP (FY2014–FY2018)<sup>1</sup>was to end in FY2018, discussions on formulating a new MTDP were held in parallel to discussions on the National Defense Program Guidelines for FY2019 and beyond (NDPG).

On December 18, 2018, the Government formulated, at the National Security Council and the Cabinet, the MTDP (FY2019–FY2023)<sup>2</sup> in order to systematically build a Multi-domain Defense Force in accordance with the NDPG.

# 2 Significance of the MTDP (FY2019–FY2023)

While the build-up of defense capability is ultimately conducted according to the budget of each fiscal year, it needs to be conducted continuously and systematically based on a specific, medium-term outlook, given that national defense forms the basis of the nation's existence and that activities such as research and development (R&D) and introduction of equipment, establishment of facilities, education of military personnel, and training of SDF units cannot be accomplished over a short term.

Accordingly, since FY1986, the Government has

formulated medium-term defense programs targeting each five-year period, and has conducted the build-up of defense capability for each fiscal year based on the relevant program.

The MTDP (FY2019–FY2023) is the first MTDP to be implemented under the NDPG, and sets forth the policy for the build-up of defense capability and the amount of major equipment to be procured for the five-year period, in order to realize the Multi-domain Defense Force specified by the NDPG.

# **3** Program Guidelines

The MTDP (FY2019–FY2023) indicates that the Self-Defense Forces (SDF) will endeavor to build up defense capability based on the following basic policy, in accordance with the NDPG.

#### Acquiring and Strengthening Capabilities Essential for Realizing Cross-Domain Operations

In order to realize cross-domain operations, the SDF will acquire and strengthen capabilities in new domains, which are space, cyberspace and electromagnetic spectrum, and strengthen and protect command, control, communications and information (C4I) capabilities that effectively connect capabilities in all domains including the new ones. In addition, 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. Furthermore, sustainability and resiliency of defense capability including logistics support will be enhanced.

#### 2 Improving the Efficiency of Acquisition of Equipment and Reinforcing the Technology Base

In procuring equipment, by properly combining the introduction of new, high performance equipment, with life extension and improvement of existing equipment, the Ministry of Defense (MOD)/SDF will efficiently secure defense capability in necessary and sufficient "quality" and "quantity". In this regard, the MOD/SDF will strive to

Chapte

<sup>1</sup> Medium Term Defense Program (FY2014-FY2018) (Approved by the National Security Council and the Cabinet on December 17, 2013)

<sup>2</sup> Medium Term Defense Program (FY2019-FY2023) (Approved by the National Security Council and the Cabinet on December 18, 2019)

reduce the life-cycle costs and improve cost-effectiveness by reinforcing project management. Moreover, 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.

#### Reinforcing Human Resource Base

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.

# Strengthening the Japan-U.S. Alliance and Security Cooperation

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 joint training and exercises, defense equipment and technology cooperation, capacity building assistance, and interchanges among military branches.

#### 5 Greater Efficiency and Streamlining in the Build-Up of Defense Capability

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. In addition, 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.

## 4 Reorganization of the Major SDF Units

The MTDP (FY2019–FY2023) indicates that the SDF will conduct reorganization of its major units and others as described below.

### Joint Operation to Realize Cross-Domain Operations

In order to build a structure that is capable of realizing cross-domain operations, the SDF will strengthen the Joint Staff's posture designed for effective SDF operations and for new domains, thereby enabling swift exercise of the SDF's capabilities. For the future framework for joint operations, the SDF will consider how to conduct the operation of organizations in which the functions in the new domains are operated unitarily, and consider how the integrated structure should be during steady-state to appropriately execute instructions from the Minister. The SDF will establish 1 squadron of Air Self-Defense Force (ASDF) space domain mission unit for conducting persistent monitoring of situations in space, and ensuring superiority in use of space.

The SDF will establish 1 squadron of cyber defense unit as a joint unit in order to fundamentally strengthen cyber defense capabilities.

The SDF will strengthen the Joint Staff's posture in order to appropriately manage and coordinate, from an integrated perspective, the use of electromagnetic spectrum, and advance efforts to enhance defense capability related to the use of electromagnetic spectrum in each SDF service.

In order to provide persistent nation-wide protection on a steady-state basis and to be able to simultaneously deal with multiple, complex airborne threats, the Ground Self-Defense Force (GSDF) will establish 2 squadrons of ballistic missile



Threats to stable use of outer space (image)



Cyber Competition (image)



Improvement of electronic warfare capabilities of fighters (F-15) (image)

Chapter

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# Establishment of a Space Domain Mission Unit

The space domain has become vital for the defense of Japan in various aspects, including the early detection of ballistic missile launches, guiding of antiballistic missiles, communication between SDF units, and information gathering.

In response, an ASDF space domain mission unit will be established in order to conduct persistent monitoring of situations in outer space, and to ensure superiority in this domain at all stages, from peacetime to armed contingencies. The space domain mission unit is scheduled for establishment as a unit responsible for the space situation monitoring system of Japan to be established by FY2022.

The ASDF will also establish new speciality dedicated to the space domain.

# Establishment of a Cyber Defense Unit

Today's military activities heavily depend on information communication networks. In armed contingencies, it is highly probable that command and communications systems will become targeted by cyber attacks aimed at the weakening of operation execution capabilities. Furthermore, attackers have a huge advantage over defenders in the cyberspace.

In light of this situation the NDPG aims to fundamentally strengthen the cyber defense capabilities of the MOD/SDF. To this purpose, the MTDP will establish a cyber defense unit as a joint unit.

Currently the Cyber Defense Group that is a joint unit of the GSDF, MSDF and ASDF is under the SDF C4 Systems Command. This structure will be reviewed by FY 2023 to newly establish a cyber defense unit as a joint unit directly under the Minister of Defense, the primary duty of which will be cyber defense.

The new cyber defense unit will have the capability to disrupt, during attack against Japan, an opponent's use of cyberspace for the attack and to train relevant personnel in addition to provide protection against cyber attacks.

# column Strengthening Capabilities in the Electromagnetic Domain

The MOD/SDF will strengthen its capabilities in the electromagnetic domain. It is not enough to simply strengthen electronic warfare capabilities (see p.175 "Column: Electronic Warfare"). It is also necessary to acquire and enhance electromagnetic spectrum management capabilities.

In modern combat scenes, the electromagnetic spectrum including radio waves is used in various fields, including detection and search for opponent by radar, communication between units, and precise missile guidance. If the use of the electromagnetic spectrum is disrupted, the SDF will not be able to execute its operations appropriately, leading to grave consequences.

Causes of obstruction of electromagnetic spectrum use may include weather conditions, interference with the electromagnetic spectrum used by other SDF units, and jamming by opponents. In order to reduce the impact of these factors, it is necessary to grasp the electromagnetic spectrum frequencies available for each SDF unit, correctly instruct which frequencies to use to prevent interference and weather influence and, when disturbed by an opponent, switch to a spectrum less affected by the jamming. Appropriate implementation of these responses is called electromagnetic spectrum management.

Electromagnetic spectrum management capabilities are essential for appropriate execution of an electronic warfare. The MOD sets up dedicated departments at the Bureau of Defense Buildup Planning and the Joint Staff Office to accelerate discussions for strengthening of the electromagnetic domain, including electromagnetic spectrum management capabilities.

Chapte

defense (BMD) units. In addition, the ASDF will reorganize surface-to-air guided missile units from 6 fire groups to 4 fire groups while maintaining 24 fire squadrons.

The SDF will establish 1 group of maritime transportation unit as Joint Unit that allows SDF units to swiftly maneuver and deploy at all stages.

# 2 GSDF

In order to strengthen operation capabilities in new domains, the GSDF will establish cyberspace units and electromagnetic operation units as subordinate units of the Ground Component Command.

In order to respond swiftly, and to deter and counter effectively and swiftly with various situations, the GSDF will transform 1 division and 2 brigades respectively into 1 rapid deployment division and 2 rapid deployment brigades that are furnished with advanced mobility and ISR capabilities. In addition to rapid deployment divisions and brigades, an amphibious rapid deployment brigade, which will be strengthened by the establishment of 1 amphibious rapid deployment regiment, will strengthen its ability to deter and counter threats through conducting persistent steady-state maneuver. In addition, the GSDF will strengthen its defense posture of the remote islands in the southwest region by continuing to establish area security units in charge of initial response activities, surface-to-air guided missile units, and surface-to-ship guided missile units. Furthermore, the GSDF will take necessary measures to establish hyper-velocity gliding projectile (HVGP) units for the defense of remote islands.

The GSDF will steadily implement programs towards successive formation of units equipped with mobile combat vehicles and disuse of tanks deployed in basic operational units stationed in locations other than Hokkaido and Kyushu.

In addition, the GSDF will steadily carry out programs that concentrate howitzers deployed in basic operational



Parliamentary Vice-Minister of Defense Yamada handing over the Regiment Flag to the commander of the 22nd Rapid Deployment Regiment (March 2019)

units stationed in locations other than Hokkaido into newly organized field artillery units under the direct command of the respective regional armies. Furthermore, the GSDF will reduce its combat helicopter units under the direct command of the respective regional armies and consider the review of their deployment to operate them effectively and efficiently.

# 3 MSDF

For effective prosecution of persistent intelligence, surveillance and reconnaissance activities (ISR), antisubmarine operations and mine countermeasure operations, the MSDF will maintain 4 groups mainly consisting of 1 helicopter destroyer and 2 Aegis-equipped destroyers, and maintain 2 groups consisting of new type of destroyers (FFM) with improved multi-mission capabilities and minesweeping vessels. The MSDF will newly establish surface units composed of these destroyer units and minesweeper units.

In addition, the MSDF will establish patrol vessel units to enable enhanced steady-state ISR. Furthermore, by introducing a test submarine, which the type will be changed from an existing submarine, the MSDF will work to achieve greater efficiency in submarine operations and accelerate capability improvement, thereby enhancing persistent ISR posture. The MSDF will continue to take measures necessary to increase the number of submarines.



New type of destroyer (3,900-ton class) (image)

# 4 ASDF

In order to enhance the air defense posture and operate effectively in airspace around Japan including vast airspace on the Pacific side, the ASDF will reorganize 8 warning groups and 20 warning squadrons to 28 warning squadrons and establish 1 airborne early warning (AEW) wing as part of air warning and control units, and take necessary measures to establish 1 squadron of fighter aircraft units.

he ASDF will disband 1 squadron of tactical reconnaissance unit with the retirement of its reconnaissance aircraft (RF-4), Chapter

and will establish 1 squadron of aerial refueling/transport units.

In order to be able to conduct information collection in areas relatively remote from Japan and persistent airborne monitoring during situations with heightened tensions, the ASDF will establish 1 squadron of unmanned aerial vehicle (UAV) unit.



Fighter aircraft (F-35A)

# **5** Major Programs regarding the SDF's Capabilities

The MTDP (FY2019–FY2023) states that the SDF will push forward various programs, such as procurement of equipment, according to the matters indicated in the "Priorities in Strengthening Defense Capability" in the NDPG as follows.

Q See Fig. II-4-1-1 (Programs Related to the "Priorities in Strengthening Defense Capability")

Priorities in Strengthening Capabilities Necessary for Cross-Domain Operations

## (1) Acquiring and Strengthening Capabilities in Space, Cyber and Electromagnetic Domains

#### (A) Capabilities in Space Domain

The SDF will acquire and strengthen capabilities necessary for conducting persistent space monitoring and ensuring superiority in use of space.

#### (B) Capabilities in Cyber Domain

The SDF will persistently ensure sufficient security against cyber attacks, and will acquire and strengthen capabilities to disrupt opponent's use of cyberspace in the event of attack against Japan.

#### (C) Capabilities in the Electromagnetic Domain

The MOD/SDF will acquire and strengthen capabilities necessary for effective and efficient use of electromagnetic spectrum in the MOD/SDF and for enhancing information gathering and analysis capabilities concerning electromagnetic spectrum and developing an information sharing posture.

# Fig. II-4-1-1 P

Programs Related to the "Priorities in Strengthening Defense Capability"

Category		Main Programs	
Space, cyber and electromagnetic domains	Space domain	OCreation of units specializing in space ODevelopment of the Space Situational Awareness System	
	Cyber domain	OEnhancement of systems for Cyber Defense Group, etc. OImprovement of the survivability of SDF's command and communications systems and networks	
	Electromagnetic domain	OEstablishment of new specialized units in internal subdivisions and the Joint Staff Office OInstallation of electronic data collectors and ground radio wave measuring apparatuses	
Traditional domains	Maritime and air domains	<ul> <li>Procurement of new types of destroyers (FFM), submarines, patrol vessels, fixed-wing patrol aircraft (P-1), patrol helicopters (SH-60K, SH-60K with improved capability), and carrier-borne unmanned aerial vehicles</li> <li>Increase of F-35A, introduction of STOVL aircraft, refurbishment of lzumo-type destroyers, and enhancement of abilities of F-15</li> </ul>	
	Stand-off defense capability	OProcurement of stand-off missiles (JSM, JASSM, and LRASM) OPromotion of R&D concerning hyper velocity gliding projectiles intended for the defense of remote islands	
	Comprehensive air and	OProcurement of Aegis Ashore	
	missile defense capability	$\bigcirc$ Enhancement of abilities of Aegis destroyers and Patriot surface-to-air guided missiles	
	Maneuver and deployment capability	<ul> <li>Procurement of transport aircraft (C-2) and transport helicopters (CH-47JA), and introduction of new utility helicopters</li> <li>Promotion of efforts to obtain cooperation from related local governments for smooth deployment of GSDF Osprey aircraft (V-22)</li> </ul>	
Strengthening sustainability and resiliency	Securing continuous operations	<ul> <li>Preferential procurement of anti-aircraft missiles, torpedoes, stand-off firepower, and interceptor missiles for ballistic missile defense</li> <li>Promotion of efforts for dispersion, recovery from damage, and substitution of infrastructure and other foundations for the SDF operations</li> </ul>	
	Ensuring the operational	OSecuring of a sufficient budget for maintenance of equipment	
	availability of equipment	OExpansion of PBL (Performance Based Logistics) and other umbrella contracts	

Chapte

#### (2) Enhancing Capabilities in Traditional Domains

### (A) Capabilities in the Maritime and Air Domains

The SDF will strengthen capabilities necessary for strengthening the posture of persistent ISR and for establishing and maintaining maritime and air superiority.

### (B) Stand-Off Defense Capability

The SDF will procure stand-off missiles, which are capable



Destroyer JS "Izumo"



of responding from the outside of their threat envelopes, and will proceed with R&D of equipment such as HVGP intended for the defense of remote islands.

### (C) Comprehensive Air and Missile Defense Capability

The SDF will strengthen capabilities for establishing a structure with which to conduct integrated operation of the respective SDF services to counter increasingly diverse and



Aegis Ashore (image)

# column Constructing a Fighter System

Amid the rapid progress of air-capability modernization in other countries, the SDF will build a fighter system to enhance air defense in the airspaces around Japan, including the vast airspace on the Pacific side.

The following initiatives will be implemented:

- $\bigcirc$  Continued procurement of the F-35A in response to the retirement of the F-4
- O Replacement of the F-15 (not modernized) by the F-35A and fighters that are capable of short take-off and vertical landing (STOVL) in order to improve operational flexibility
- Upgrading of the F-15 (modernized), including the enhancement of its electronic warfare capabilities, mounting of stand-off missiles, and strengthening of response to cruise missiles
- C Launching of a Japan-led development project of future fighters (F-2 successors) at an early timing with the possibility of international collaboration in sight







Landing craft utilities (LCU) (image)



Type-16 mobile combat vehicles

Logistics support vessels (LSV) (image)

complex airborne threats, thereby providing nation-wide protection on a steady-state basis and for simultaneously dealing with multiple, complex airborne threats.

#### (D) Maneuver and Deployment Capability

The SDF will strengthen capabilities necessary for securing capabilities for swift and large-scale transportation and deployment operations for a wide variety of situations and for improving effective deterrence and counter capabilities. In addition, the SDF will take necessary measures after considering how to command and coordinate the transport capabilities of each SDF service unilaterally from a steadystate.

# (3) Strengthening Sustainability and Resiliency (A) Securing Continuous Operations

In order to be able to operate units continuously at all stages, the SDF will promote measures necessary for securing ammunition and fuel and protecting infrastructure and other foundations for SDF operations. With regard to ammunition, the SDF will prioritize to procure the required ammunition while taking account of the needs of joint operation.

#### (B) Ensuring the Operational Availability of Equipment

In order to be able to swiftly and effectively respond to various situations, the MOD/SDF will promote measures for ensuring high operational availability of procured equipment.

#### 2 Priorities in Strengthening Core Elements of Defense Capability

#### (1) Reinforcing Human Resource Base

#### (A) Enhancement of Recruitment Initiatives

The MOD/SDF will proceed with measures towards expanding the recruitment of non-fixed term enlisted personnel and expanding the source for prospects including university graduates. The MOD/SDF will also enhance recruiting advertisement and recruiting systems.

#### (B) Effective Utilization of Human Resources

The MOD/SDF will promote women's active participation and proceed with the establishment of the foundations for the education, living and work environment for female SDF

#### personnel.

The MOD/SDF will raise the early retirement age for SDF personnel, expand reenrollment and promote the utilization of the skills of retired SDF personnel.

#### (C) Improving Living and Work Environment

The MOD/SDF will strive to make improvements by such means as promoting the securing, reconstruction, and measures against aging and earthquake resistance for barracks and housing, as well as renewing aged daily life/ workplace fixtures and steadily securing the necessary quantities of daily necessities.

#### (D) Promotion of Work Style Reforms

The MOD/SDF will promote initiatives for ensuring proper work-life balance as well as measures supporting families of military personnel.

#### (E) Enhancing Education

The MOD/SDF will strive to enhance the content and organizational structure of the education and training at each SDF service and the National Defense Academy of Japan (NDAJ), and take necessary measures after considering the ideal education and research regarding joint operations.

In order to further promote mutual reinforcement between each SDF service, the MOD/SDF will strive to standardize the curriculum.

#### (F) Improving Treatment and Re-employment Support

The MOD/SDF will promote improving measures concerning honors and privileges and welfare of SDF personnel. The MOD/SDF will strive to further improve re-employment support by such means as promoting the further utilization of retired SDF Personnel in the disaster preventionrelated departments of local governments and others while expanding vocational training subjects.

## (G) Utilization of SDF Reserve Personnel including Candidates for SDF Reserve Personnel

The MOD/SDF will promote the use of SDF Ready Reserve Personnel and SDF Reserve Personnel in broader areas and opportunities. In addition, the MOD/SDF will also increase the number of enrollees as Candidates for SDF Reserve Personnel.

#### (2) Reviewing Equipment Structure

The MOD/SDF will strengthen the functions of the Joint Staff in order to build an effective and rational equipment structure from a joint operation perspective. The MOD/SDF will also develop equipment with multiple functional variants, optimize and standardize specifications of equipment, jointly procure equipment commonly used across SDF services, reduce types of aircraft, suspend the use of equipment whose importance has decreased, and review or discontinue projects of low cost-effectiveness.

In order to maximize defense capability by effectively utilizing the limited human resources to the utmost, the MOD/SDF will actively promote initiatives towards automation and manpower saving through such means as the introduction of artificial intelligence (AI) in various fields, the procurement of UAVs, R&D of unmanned underwater vehicles (UUV), and streamlining in design of new types of destroyers (FFM) and submarines.

#### (3) Reinforcing Technology Base

The MOD/SDF will make focused investments in important technologies including artificial intelligence and other potentially game-changing cutting-edge technologies.

In addition, the MOD/SDF will significantly shorten R&D timelines by streamlining its process such as for HVGP for the defense of remote islands, etc.

The MOD/SDF will work actively to leverage potentially dual-use, advanced commercial technologies through such efforts as: technology exchange with relevant domestic and overseas entities; enhanced collaboration with relevant ministries and agencies; and use of the "Innovative Science & Technology Initiative for Security" program.

#### (4) Optimizing Equipment Procurement

The MOD/SDF will enhance the effectiveness and flexibility of project management throughout equipment lifecycles through efforts, including application of a competitive bidding process and more rigorous cost management, and expand items subject to project management while promoting proper criteria to examine the specifications and project plans and their application in order to further facilitate effective and efficient acquisition of equipment.

Regarding the cost estimation of equipment without market prices, the MOD/SDF is eager to develop and place human resources for appropriate assignment by making use of human resources from the private sector, and promote development of a database of cost and such in order to undertake more appropriate cost calculation. The MOD/SDF will also conduct the procurement of information systems at appropriate price levels.

The MOD/SDF will also promote the utilization of a planned acquisition method that contributes to effective procurement, efficient sustainment and maintenance, including the expansion of PBL and other umbrella contracts, competition among domestic and foreign companies, and initiatives towards the streamlining of procurement through Foreign Military Sales (FMS procurement).

#### (5) Strengthening Defense Industrial Base

The Government will actively take measures such as introducing the competition principle to Japan's defense industry, which is in a poor competitive environment, incorporating the knowledge, expertise, and technology of the civilian sector, and strengthening the supply chains of equipment.

Meanwhile, in order for the Government as a whole to promote appropriate overseas transfer of defense equipment under the Three Principles on Transfer of Defense Equipment and Technology, the Government will take various measures, such as making necessary improvements in implementation or related rules, promoting public-private partnerships, and strengthening technology control, intellectual property management, and information security measures.

In addition, the MOD/SDF will undertake measures such as making the equipment manufacturing process efficient and thorough cost reduction, 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.

#### (6) Enhancing Intelligence Capabilities

The MOD/SDF will drastically strengthen information gathering and analysis capabilities through establishing and enhancing capabilities of information collection facilities, utilizing Information Gathering Satellites and commercial satellites, and using new equipment such as long-endurance UAVs. Furthermore, the MOD/SDF will also strive to effectively develop and connect systems that will promote information sharing.

The MOD/SDF will promote securing and training of highly capable personnel handling information collection and analysis.

The MOD/SDF will make every effort to ensure information security, and will strengthen counter-intelligence capability within the MOD/SDF.

### 3 Large-Scale Disasters

The SDF will promote measures to strengthen the response posture including the deployment of drones for disasters, a helicopter satellite communication system (HeliSat), lifesaving systems, and emergency power sources.

#### Strengthening the Japan-U.S. Alliance

Japan will continue to promote cooperation in space and cyber domains, comprehensive air and missile defense, joint training and exercises and joint ISR activities. Japan will also further deepen Japan-U.S. operational cooperation and policy coordination in various areas such as formulation and renewal of bilateral plans and the Extended Deterrence Dialogue.

In order for Japan and the U.S. to be able to fully leverage their capabilities during bilateral activities, Japan will advance efforts for standardization of defense equipment that contributes to Japan-U.S. bilateral activities, sharing of various networks, building capacity for in-country maintenance of U.S.-made equipment and initiatives for intelligence cooperation /information security. To efficiently improve Japanese and the U.S. capabilities, while facilitating common understanding of respective priorities in defense capability enhancement, promote measures such as effective acquisition of advanced U.S equipment through optimized FMS procurement and Japan-U.S. joint R&D. Furthermore, Japan will promote cooperation on joint/shared use of SDF and U.S force facilities, and efforts for improved resiliency.

In order to make the stationing of U.S. Forces in Japan more smooth and effective, Japan will steadily secure Host Nation Support (HNS).

#### **5** Strengthening Security Cooperation

In line with the vision of Free and Open Indo-Pacific, Japan will further promote bilateral and multilateral defense cooperation and exchanges.

In particular, in addition to high-level exchanges, policy dialogues and exchanges among military branches, in order to improve interoperability with relevant countries and to strengthen Japan's presence, Japan will appropriately combine and strategically implement specific initiatives such as joint training and exercises, defense equipment and technology cooperation and capacity building assistance, while taking characteristics and situation specific to each region and country into account.

# 6 Elements Supporting Defense Capability

#### (1) Training and Exercises

The SDF will expand the establishment and utilization of the training areas in Hokkaido and elsewhere in Japan and conduct effective training and exercises. The SDF will also facilitate to expand joint/shared use of U.S. Forces facilities and areas with 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 United States and Australia, and introduce simulators actively.

Seeking to respond to various situations with a whole-ofgovernment approach, coordination with relevant agencies including police, firefighters, and the Japan Coast Guard will be reinforced.

#### (2) Medical Care

In order to respond to various situations, the SDF will strive to enhance the capacity to rapidly deploy medical bases and conduct Damage Control Surgery (DCS) to stabilize the symptoms of patients, and the capacity to manage patients being sent back as part of strengthening the system to seamlessly cover the entire stretch between the frontline and final medical evacuation destinations including the perspective of joint operations.

In order to conduct the control and coordination regarding medical operations of the SDF on a steady-state basis, the SDF will strive to strengthen the organization of the Joint Staff. The SDF will further promote the upgrading of SDF hospitals into medical hubs with enhanced functions, and 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. In addition, the MOD/SDF will proceed with the establishment of hygienic education and training foundations common to each SDF service that are necessary to improve medical care capabilities for combat injuries.

#### (3) Collaboration with Local Communities

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

Chapter

Fig. II-4-1-2

	Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019-FY2023)			
Service	Equipment	Quantity	Unit prices	
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	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	
	Tanks	30	Approx. 1.5 billion yen	
	Howitzers (excluding mortars)	40	Approx. 0.7 billion yen	
	Destroyers	10	Approx. 47.6 billion	
		5	yen	
	Submarines		Approx. 64.7 Dillion	
	Patrol Vessels	4	(*2)	
	Other Ships	4	(*5)	
MSDF	Total	23		
modi	(Tonnage)	(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	
	Fighter Upgrade (F-15)	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 (PAC-3 MSE)	4 groups (16 fire 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 STOVL 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.

to be able to gain the understanding of the local governments and residents.

#### (4) Intellectual Base

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 also 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.

### 6 Quantities of Major Procurement

The Annex Table of the MTDP (FY2019–FY2023) shows details of the quantities of major procurement described in 5 above.

**Q** See

Fig. II-4-1-2 (Annex Table of the MTDP (FY2019-FY2023) and Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019-FY2023))

# 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.

For the duration of the MTDP (FY2019–FY2023), in harmony with other measures taken by the Government, substantive funds will be secured by means of thoroughgoing greater efficiency and streamlining in defense force development, suspending the use of equipment whose importance has decreased, reviewing or discontinuing projects of low cost-effectiveness, optimizing equipment procurement through cost management/suppression and long-term contracts and securing other revenue. The annual defense budgets target for the implementation of this MTDP is expected to be around approximately ¥25.5 trillion over the next five years. Concerning the budgetary process for each fiscal year, in order to adapt to increasingly rapid changes in the security environment, Japan must strengthen its defense capability at speeds that are fundamentally different from the past. Moreover, to achieve rapid procurement of defense equipment, Japan must pursue flexible and swift project management, and the budgetary process for each fiscal year which will be conducted taking into account the economic and fiscal conditions among other budgets.

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 ¥17,170 billion 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.

The MTDP (FY2019–FY2023) will be reviewed after three years as necessary, with consideration to such factors at home and abroad as the international security environment, trends in technological standards including information communication technology, and fiscal conditions.

### 8 Other

In "Other" section of the MTDP (FY2019–FY2023), it is stipulated that Japan will steadily implement specific measures stipulated in "United States-Japan Roadmap for Realignment Implementation" and other SCC (Security Consultative Committee) documents and SACO (Special Action Committee on Okinawa) related programs to mitigate the impact on local communities, including those in Okinawa while maintaining U.S. Forces deterrence.

Chapte