

防衛省

Ministry of Defense

Progress and Budget in Fundamental Reinforcement of Defense Capabilities

Overview of the FY2024 Budget Request

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I Prompt Implementation of Fundamental Reinforcement of Defense Capabilities

Promotion HQ for Realization of Fundamental Reinforcement of Defense Capabilities

In April 2023, **the Promotion HQ for Realization of Fundamental Reinforcement of Defense Capabilities was established** to steadily execute each project stipulated in the National Defense Strategy (NDS) and the Defense Buildup Program (DBP). Through this, the MOD will strongly promote fundamental reinforcement of defense capabilities.

Promotion HQ for Realization of Fundamental Reinforcement of Defense Capabilities

Head: Minister of Defense

General Secretariat

Head: Vice-Minister of Defense for Administration

Comprehensive Coordination Secretariat

[General Coordination, Dissemination of Information, etc.]

Project Management Secretariat

[Progress Management of each Project]

Task Forces

(Stand-off Defense Capabilities, Sustainability and Resiliency, etc.)

Accounting/Procurement System Secretariat

[Comprehensive coordination concerning Accounting and Procurement Procedures]

II Progress of the Defense Buildup Program

Progress of Equipment Procurement

【Basic Policy of DBP】

○ In FY 2023, which is the first year of the DBP, the MOD secured the amount of budget necessary to **achieve the fundamental reinforcement of defense capabilities as early as possible**.

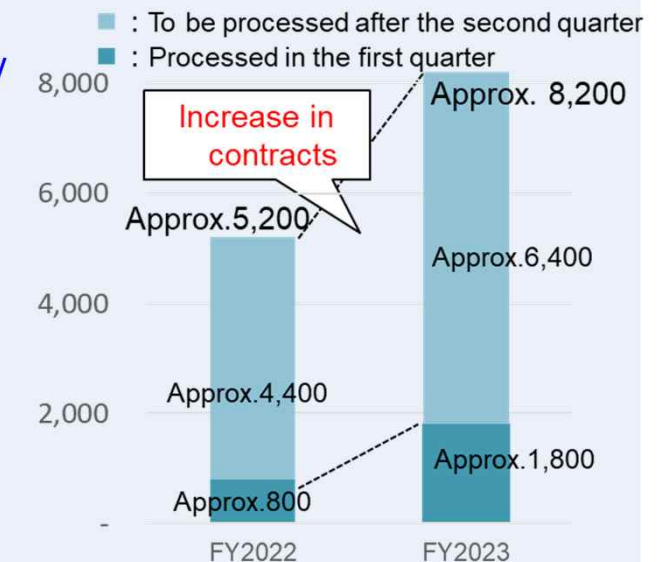
○ **Contracting process has been accelerated** for early deployment of major defense equipment.

【Revision of the procedures for smooth contracting】

○ In order to execute projects and budget effectively and efficiently, **internal procurement procedures and accounting practices have been accelerated and rationalized**.

< Status of contract processing in Central Procurement (equipment) >

Comparison at the end of the First quarter



※ ATLA procures main equipment and services centrally as Central Procurement
 ※ FY2022: result, FY2023: Initial plan
 ※ Counting successful bid (with determined contractor as a result of bidding), etc.

Stand-off Defense Capabilities

○ **Considering the necessity of early introduction of domestically produced stand-off missiles, the following contracts have been concluded:**

- Development of Upgraded Type-12 SSM (Surface-, Ship-, and Air-launched variants)
- Production of Upgraded Type-12 SSM (Surface- launched)
- Development of Upgraded HVGP
- Fundamental research for HVGP
- Production of HVGP
- Development of Hypersonic Missiles
- Development of submarine-launched missiles
- Development of target observation rounds



Upgraded Type-12 SSM (conceptual image)



Hyper Velocity Gliding Projectile (conceptual image)



Hypersonic Missile (conceptual image)

○ **In order to expand domestic manufacturing capacity for mass production of stand-off missiles, the following contracts have been concluded:**

- Initial cost for production of Upgraded Type-12 SSM
- Initial cost for production of HVGP

II Progress of the Defense Buildup Program

Integrated Air and Missile Defense Capabilities

- Contracts regarding the design of Aegis System Equipped Vessels (ASEV) (1st and 2nd ship) have been concluded.
- Elemental technology research for the capabilities to respond to HGVs was initiated.
- Contracts regarding the Type 03 medium-range surface to-air guided missile (modified) have been concluded.

[conceptual image]



Aegis System Equipped Vessel



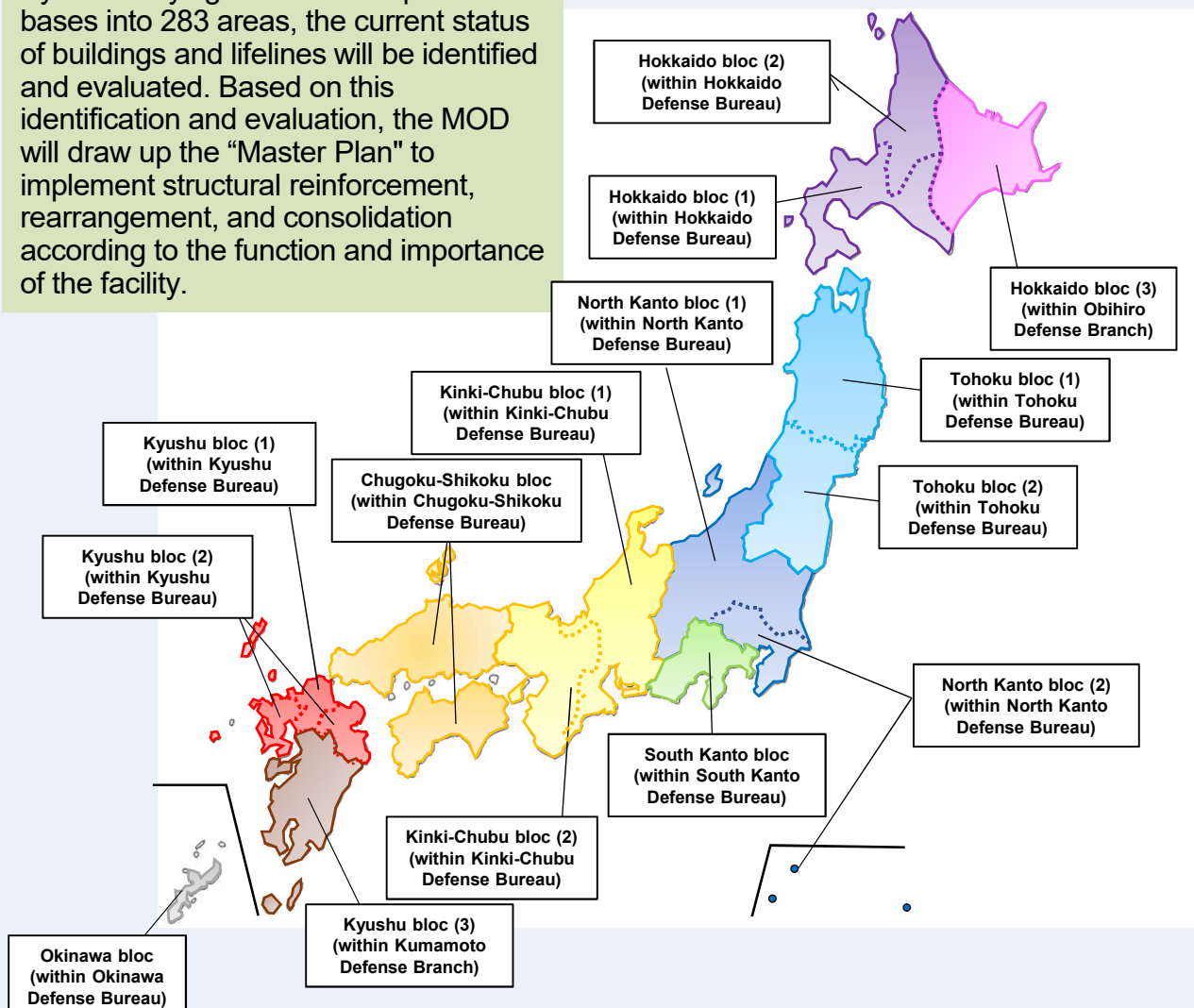
Type 03 medium-range surface to-air guided missile (modified)

Improving Resiliency of Defense Facilities

- Contracts regarding the preparation of the “Master Plan” to consolidate and reconstruct more than 20,000 facilities in 283 areas have been concluded (one contract regarding basic policy planning and 15 contracts regarding Master Plan drafting).

Master Plan

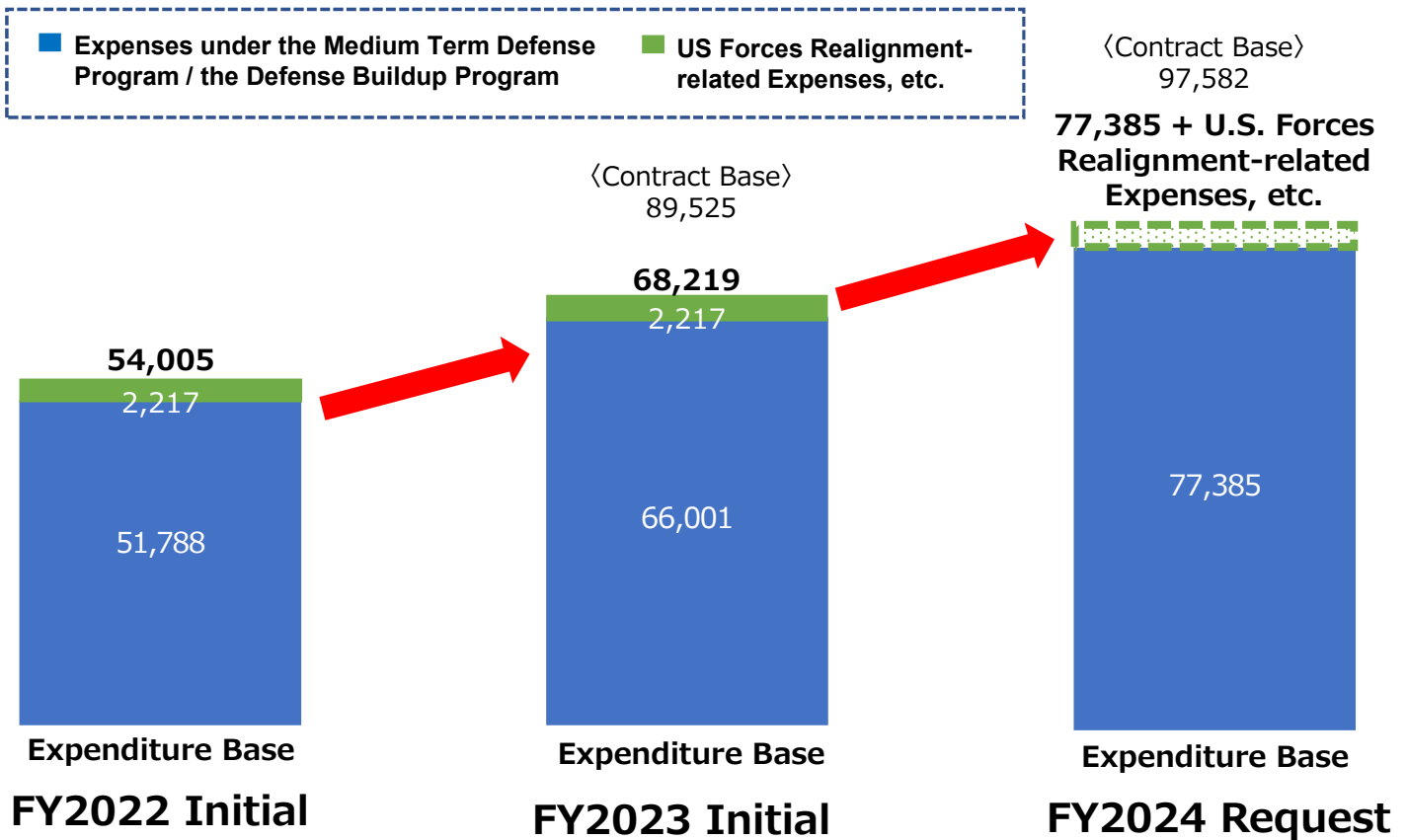
By reclassifying all JSDF camps and bases into 283 areas, the current status of buildings and lifelines will be identified and evaluated. Based on this identification and evaluation, the MOD will draw up the “Master Plan” to implement structural reinforcement, rearrangement, and consolidation according to the function and importance of the facility.



III Basic Concept of the FY2024 Budget Request

- For FY2024, the Budget Request Criteria reads “Based on the ‘DBP’, necessary amount can be requested for the expenses under the DBP.” Based on this criterion, considering the accumulation of the projects which should be initiated during this fiscal year to realize the DBP within its period as well as the progress of the projects initiated in the last FY, the MOD increased its budget request steadily.
- According to the “NDS” and the “DBP”, the MOD focuses on the seven key fields. For instance, the MOD will initiate the buildup of Aegis System Equipped Vessels (ASEV), while continuously placing emphasis on the fundamental enforcement of core areas of future defense capabilities, such as stand-off defense and unmanned asset defense. The MOD will also continue to accelerate investment in increasing the number of operationally available equipment, securing ammunition, and fortifying key defense facilities to maximize the use of existing equipment.
- On top of that, in order to reinforce the defense capability from the aspect of “manpower”, the MOD will continuously promote the reinforcement of human resource base and the transformation of medical functions, etc. through various measures, such as recruitment of talented human resources, improvement of living and working environment and treatment. Furthermore, in order to maintain and reinforce the defense production and technological base as a virtually integral part of defense capability, the MOD will steadily carry out various projects, including those based on the Law to Strengthen Production Bases for Defense Equipment, as well as R&D and the measures to incorporate advanced civilian technologies.
- In procurement, the MOD will carefully examine the cost in light of the weak yen and high prices. The MOD will also promote efficient procurement through bulk purchase and long-term contracts.

III Basic Concept of the FY2024 Budget Request



Key Fields for Fundamental Reinforcement of Defense Capabilities

① Stand-off defense capability

② Integrated air and missile defense capabilities

③ Unmanned Defense Capabilities

④ Cross-Domain Operational Capabilities

⑤ Command and Control/ Intelligence related Functions

⑥ Mobile deployment capabilities/ Civil protection

⑦ Sustainability/ Resilience

Detering invasion itself

- Gaining supremacy across domains
- Ensuring asymmetric advantage

Operating in a swift and persistent manner

III FY2024 Budget Request (Expenses by Category)

- In the budget request for FY2024 which is the second year of Defense Buildup Program, requests for expenses in almost all the areas have increased on-year, according to the content of the DBP that the MOD will by the FY2027 start preparing defense equipment and facilities necessary to realize the fundamental reinforcement of defense capabilities.

【unit: ¥100 million】

Classification	Areas	FY2023 Budget (Contract Base) (A)	FY2024 Request (Contract Base) (B)	Increment (B – A)
Stand-off Defense Capabilities		14,130	7,339	△6,791
Integrated Air and Missile Defense Capabilities		9,829	12,420	+ 2,591
Unmanned Defense Capabilities		1,791	1,161	△631
Cross-Domain Operational Capabilities	Space	1,529	1,145	△384
	Cyber	2,363	2,185	△178
	Vehicles/ Vessels/ Aircraft, etc.	11,763	13,787	+ 2,023
Command and Control/ Intelligence-related Functions		3,053	4,488	+ 1,435
Mobile Deployment Capabilities/ Civil Protection		2,396	5,951	+ 3,554
Sustainability and Resiliency	Ammunitions	2,124	4,068	+ 1,944
	Improvement of Operational Availability of Defense Equipment	17,930	19,041	+ 1,111
	Facilities Improvement	4,740	8,043	+ 3,302
Reinforcing Defense Production Base		972	886	△86
Research and Development		2,320	2,321	+ 1
Base Measures		5,149	5,182	+ 33
Training/ Education, Fuels		9,437	9,567	+ 130
Total		89,525	97,582	+ 8,057

1. The total expenses based on contracts to be newly concluded to implement the DBP is stipulated to be ¥43.5 trillion in the DBP. Since ¥8.95 trillion of that amount was budgeted in FY2023, and ¥9.76 trillion will be budgeted in FY 2024, the remaining amount for FY2025 to FY2027 will be ¥24.79 trillion.
2. Totals are rounded off, and may not match totals.

III FY2024 Budget Request (Expense Classifications)

Annual Defense-related Expenditures (3 categories)

【Unit: ¥100 million】

Category	F Y 2 0 2 3 B u d g e t		F Y 2 0 2 4 R e q u e s t	
		year on year change		year on year change
Defense-Related Expenditures	66,001 (68,219)	14,213[27.4] (14,214[26.3])	77,385 (77,385)	11,384[17.2] (9,166[13.4])
Personnel and provisions expenses	21,969	229[1.1]	22,125	156[0.7]
Material expenses	44,032 (46,250)	13,984[46.5] (13,985[43.3])	55,260 (55,260)	11,228[25.5] (9,010[19.5])
Obligatory outlay expenses	25,182 (26,531)	5,531[28.1] (5,958[29.0])	36,465 (36,465)	11,283[44.8] (9,934[37.4])
General material expenses	18,850 (19,719)	8,453[81.3] (8,027[68.6])	18,795 (18,795)	△55[△0.3] (△924[△4.7])

- (Note)
1. []:year on year growth rate (%)
 2. Totals are rounded off and may not match totals.
 3. Figures in the lower row of “Defense-Related Expenditures” include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and other expenses.
 4. “Defense-related expenses” are the sum of the expenses managed by the Ministry of Defense and the expenses managed by the Digital Agency for the system of the Ministry of Defense.
 5. SACO-related expenses and U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities), improving operational availability and securing ammunition ,etc. are requested for items.

III Overview of the FY2024 Budget ~Key Programs~

◆ Deployment of Stand-off missiles

Stand-off Defense Capabilities

- Continue (from the last fiscal year) the development, production, and acquisition of various stand-off missiles with different range/speed/flight path/target/launch platform
- Continuously strengthen the command and control functions

FY2023	JFY24	JFY25	JFY26	JFY27	JFY28	JFY29	JFY30	JFY31
Development of Upgraded Type-12 SSM (Surface-, Ship-, Air-launched variants)								
Development of submarine-launched missile								
Development of new Surface-to-Ship/Surface precision guided missile								
Development of Upgraded Hyper Velocity Gliding Projectile (HVGP)								
Development of Hypersonic Missile								
Acquisition of foreign stand-off missiles (JSM, JASSM)								
Acquisition of foreign stand-off missile (Tomahawk)								



◆ Shipbuilding of Aegis System Equipped Vessels

Integrated Air and Missile Defense Capabilities

- ASEV will be equipped with SM-6 capable of responding to such missiles as HGVs in the terminal phase, while having the equivalent or higher level of combat capabilities and mobility than existing DDGs
- Planning to acquire increased stability and expandability for future equipment including Upgraded Type-12 SSM and counter-HGV missiles

JFY2023	JFY24	JFY25	JFY26	JFY27	JFY28
Production of Aegis Weapon System				# 1	# 2
Ship-design				Target Commission Date	Target Commission Date
Long-lead items					
Ship-building					
Preparation for trials and test-site installation					



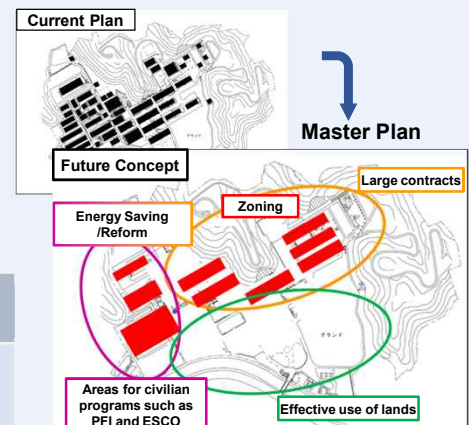
※ Layout and details of each equipment are not depicted as they are subject to change in the design process

◆ Improving resiliency of existing facilities

Sustainability and (Facility) Resiliency

- Allocate JFY23 budget to formulate a master plan over the next 3 years for integration and renovation of facilities in camps and bases (283 areas in total). Will start facility works from JFY24 to improve facility resiliency and living and working environments of SDF personnel

JFY2023	JFY24	JFY25	JFY26	JFY27	JFY28	~	JFY32
Master Plan formulation							
				Facility works (in order of priority)			



Prioritize facility works on camps and bases of high operational importance

III Overview of the FY2024 Budget ~Key Points~

◆ Establishment of Permanent Joint Headquarters (provisional name)

■ National Defense Strategy (December 2022)

In order to reinforce effectiveness of joint operational posture, Japan will establish a permanent Joint Headquarters which can unify command of GSDF, MSDF, and ASDF by reviewing the existing organization.

■ Defense Buildup Program (December 2022)

A Permanent Joint Headquarters will be established in order to build a system capable of seamlessly conducting cross-domain operations at all stages from peacetime to contingency, with the aim of strengthening the effectiveness of joint operations among each SDF services.

《Background behind the Establishment of Permanent Joint Headquarters》

- It is difficult for a temporary joint task force to seamlessly respond in accordance with changes of circumstances.
- Joint operational system capable of conducting cross-domain operations is insufficient.
- The current structure lacks the function to coordinate with the United States Indo-Pacific Command and Joint Task Force Command.

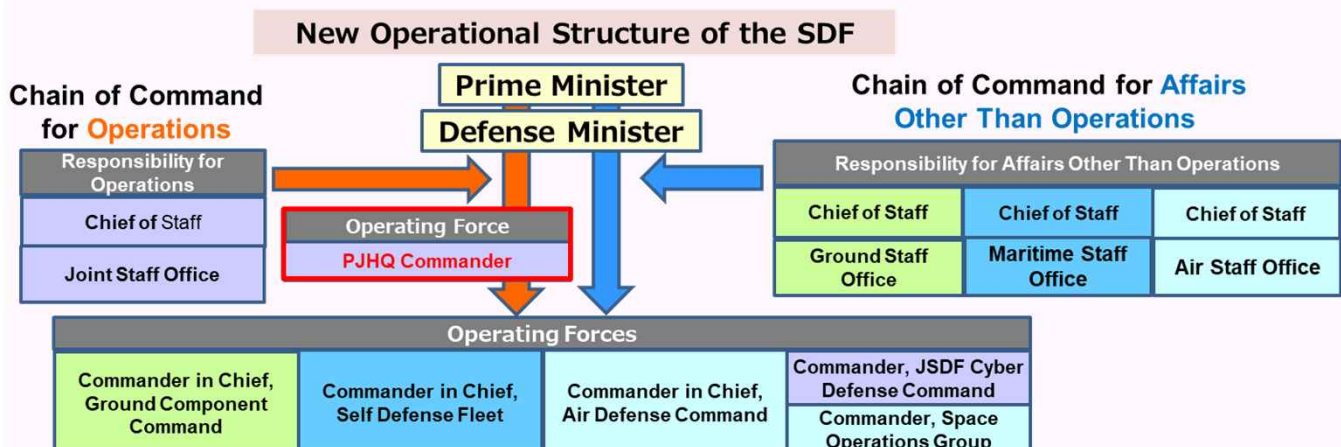
⇒ Solve the above-mentioned issues by establishing Permanent Joint Headquarters with the centralized authority to command all three (Ground, Maritime and Air) services of the SDF

《Overview of Permanent Joint Headquarters》

- PJHQ (starting with 240 members) will be established in Ichigaya at the end of FY2024
- PJHQ Commander will be given the same rank equivalent to the Chiefs of Staff for GSO, MSO, and ASO

《Roles of PJHQ Joint Commander》

- Seamlessly and centrally command units from peacetime for the SDF operations
- Jointly and collaboratively formulate and execute operations
- Under the Minister's order, allocate missions and necessary capabilities to relevant commanders, and command operations



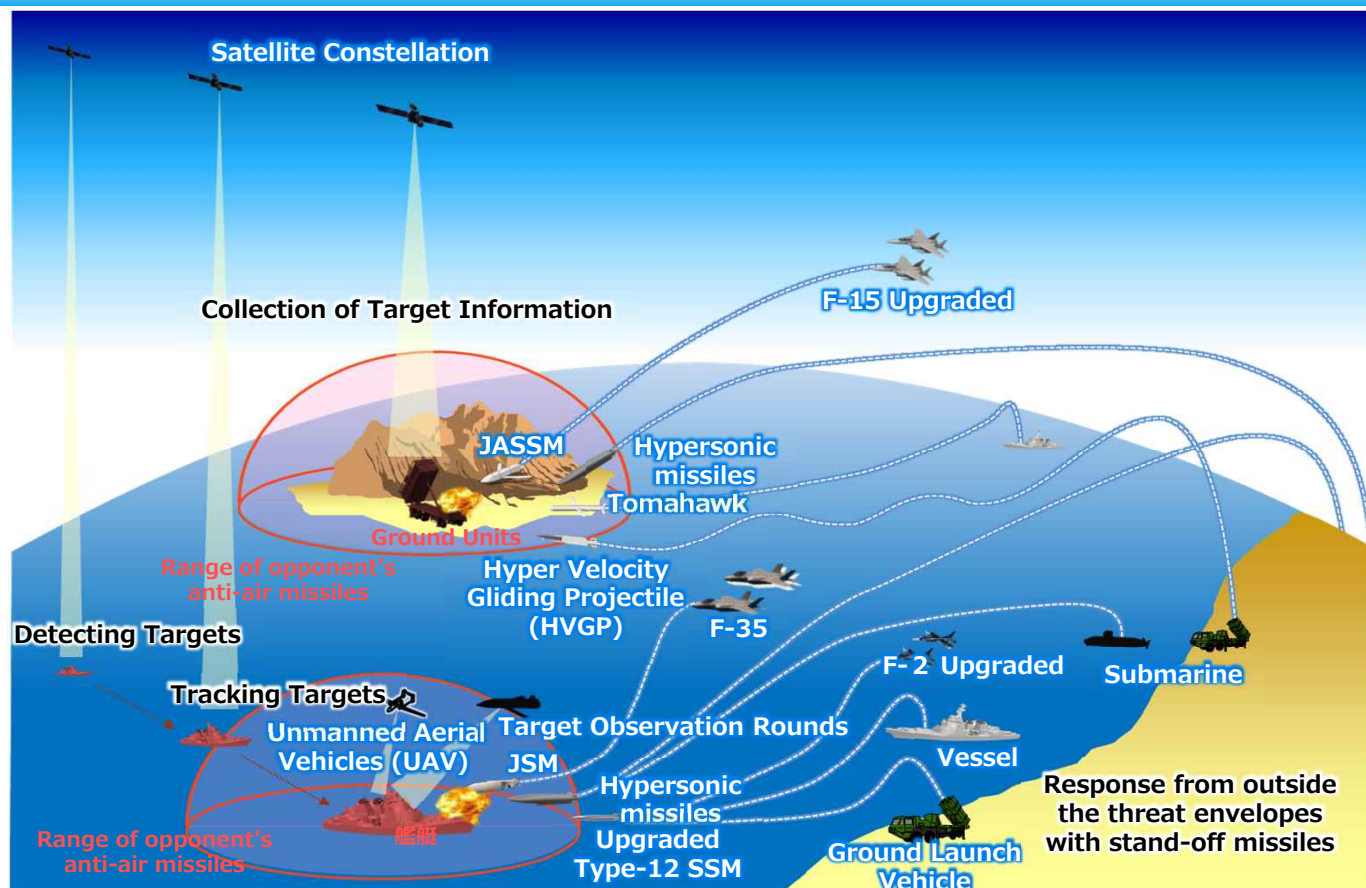
IV: Main Programs

1 Stand-off Defense Capabilities

Approx. ¥755.1 billion (Approx. ¥733.9 billion excluding other areas)

- In order to defend Japan's territory over 3,000km diameter, the MOD fundamentally strengthens its stand-off defense capabilities to conduct diverse responses from outside the threat envelopes of air missiles, etc. against vessels and landing forces attempting to invade the territory including remote islands.
- Should invasion of Japan occur in any region, it is essential to possess sufficient multi-tier capabilities necessary to disrupt and defeat such forces from different places across the territory.
- It is possible to force more complex measures on adversary by diversifying launch platforms as well as utilizing in combination a variety of stand-off missiles with different characteristics.
- In addition to promoting prompt acquisition of foreign stand-off missiles, the MOD expands the domestic production base of stand-off missiles, so that it can ensure a sufficient and necessary amount at the earliest time possible.
- The MOD also makes efforts in acquiring a series of functions required for stand-off operation, including collection of target information and command and control.
- Upon establishing operational capabilities of existing stand-off missiles, the MOD expedites R&D and mass production for early acquisition of more advanced stand-off defense capabilities.

Future Operation of Stand-off Defense Capabilities (conceptual image)



IV: Main Programs

Development and Acquisition of Upgraded Type-12 SSM (Surface-to-Ship Missile)

- Development of Upgraded Type-12 SSM (Surface-, Ship-, and Air-launched variants) (¥17.4 billion)
- Increasing production capacity of Upgraded Type-12 SSM (Surface-, Ship-, Air-launched variants), etc. (¥47.4 billion)
- Acquisition of Upgraded Type-12 SSM (Surface-launched) (¥95.1 billion)
- Acquisition of ground equipment for Upgraded Type-12 SSM (Surface-launched) (¥14.4 billion)
- Acquisition of integration equipment for Upgraded Type-12 SSM (Ship-launched) (¥0.6 billion)



Upgraded Type-12 SSM
(conceptual image)

Development of Hyper Velocity Gliding Projectile (HVGP)

- Development of Hyper Velocity Gliding Projectile (HVGP) (¥18.1 billion)
Continue research on HVGP which glides at high speed and hits ground targets
- Development of upgraded Hyper Velocity Gliding Projectile (HVGP) (¥83.6 billion)
Continue the development of upgraded type with extended range from the initial (early deployment) type



Hyper Velocity Gliding
Projectile (upgraded type)
(conceptual image)

Development of Hypersonic Missiles • Increasing Production Capacity

- Development of Hypersonic Missiles (¥71.8 billion)
Develop the missiles to fly at hypersonic speed (beyond Mach 5) which makes it harder to intercept by leveraging the study on component technologies, while expediting the demonstrational research to integrate them as a guided weapon system
- Increasing production capacity of Hypersonic Missiles (¥8.5 billion)



Hypersonic Missile
(conceptual image)

Other Stand-off Missiles

- Development of new Surface-to-Ship/Surface-to-Surface precision-guided missiles (¥32.0 billion)
 - Start the development of new stand-off missiles with upgraded anti-ship/surface capabilities
 - Plan to utilize the ground equipment of Upgraded Type-12 SSM
- Acquisition of JSM (¥37.3 billion) and JASSM (¥5.0 billion)
 - ※ JSM: Joint Strike Missile (to equip F-35A)
JASSM: Joint Air-to-Surface Stand-Off Missile
(to equip Upgraded F-15)
- F-35A Upgrade (JSM integration) (29 aircraft: ¥23.4 billion)
- F-15 Upgrade (JASSM integration) (¥13.0 billion)
- F-2 Upgrade (Upgraded Type-12 SSM (Air-launched) integration) (8 aircraft: ¥12.1 billion)
- Upgrade Vessels with Tomahawk Launch Capability (¥200 million)
 - Upgrade vessels in preparation for the acquisition of Tomahawk missiles in JFY2026



JASSM (conceptual image)



JSM-equipped F-35A
(conceptual image)



Command and Control

- Development of system for seamless command and control (¥21.5 billion)
Develop the integrated command and control software to conduct the smooth and seamless C2 activities with the operation of stand-off missiles as its central core

Launch of Tomahawk (conceptual image)

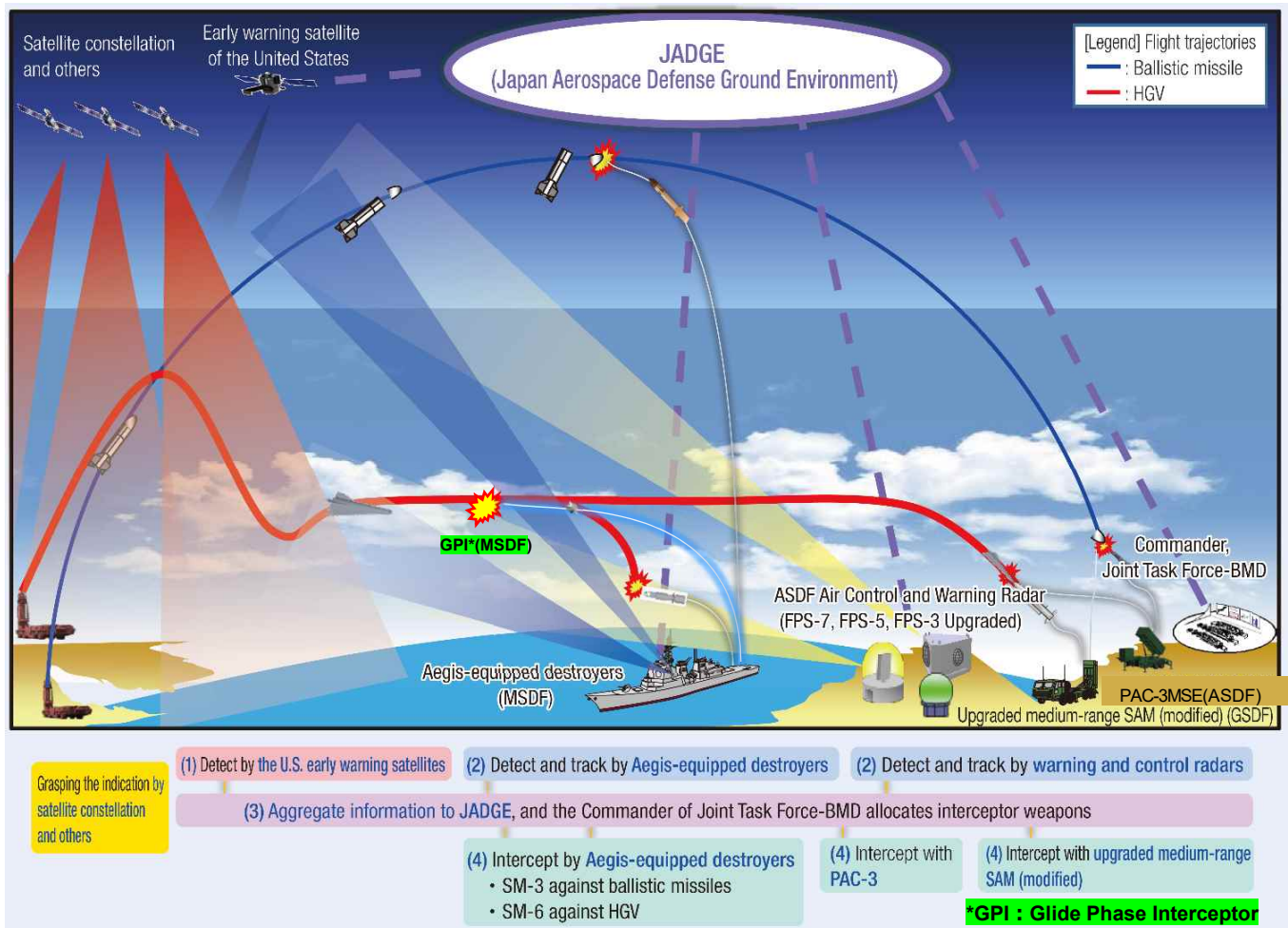
IV: Main Programs

2 Integrated Air and Missile Defense Capabilities

Approx. ¥1,271.3 billion (Approx.¥1,242.0 billion excluding other areas)

- It is critical to **effectively respond to increasingly diverse and complex airborne threats** such as missiles and aircraft.
- Improving detect and track capabilities, achieving effective response through networking, and enhancing intercept capabilities are necessary.
- Japan will **first intercept with its missile defense system missiles** flying over the high seas and Japan's territorial airspace. Subsequently, as a measure for self-defense to the minimum required level to prevent missile attacks by ballistic missiles, etc.(counterstrike capabilities), Japan will utilize capabilities including stand-off defense capabilities to conduct effective counterstrike in the opponent's territory.

Integrated Air and Missile Defense (conceptual image) (HGV / Ballistic Missile interception phase)



IV: Main Programs

Strengthening Interception Assets

- Ship-building of Aegis System Equipped Vessel (ASEV) (2 ships: ¥379.7 billion)
Start the building from JFY24 aiming for early commissions (first ship in JFY27 and second in JFY28) with their focus on increasingly advanced threats including ballistic missiles
※ Approx. ¥395.0 billion per ship (automatically calculated with costs allocated in former JFYs)
- Japan-U.S. Cooperative Development of GPI (¥75.0 billion)
Japan and the United States decided to initiate a Glide Phase Interceptor (GPI) Cooperative Development Program in order to respond to HGV in the glide phase
※ GPI : Glide Phase Interceptor
- Deployment of Guided Interceptors
SM-3 Block II A (¥65.3 billion), SM-6 (¥35.2 billion), Recertification of PAC-2GEM (¥74.6 billion) and PAC-3 (¥23.5 billion)
Deploy Base Air Defense SAM (KBSAM) (¥10.9 billion) and Type-03 Medium-Range SAM (Modified) (¥12.9 billion)



Aegis System Equipped Vessel
(conceptual image)



SM-3 Block IIA
(conceptual image)



PAC-3
(conceptual image)



Base Air Defense SAM
(KBSAM)



Type 03 medium-range surface-to-air
guided missile (modified)

- Development of Upgraded Type 03 medium-range surface-to-air guided missile (modified) (¥13.6 billion)
Continue upgrades to enable responses against

Strengthening Sensors and Networks

- Reinforcement of Warning/Control Capabilities
Upgrades of FPS-5 (¥2.9 billion), FPS-7 (¥500 million) and JADGE (¥38.0 billion)
Retrofit of FPS-3 into FPS-7 (¥4.4 billion)
- Acquisition of Mobile Warning and Control Radars (TPS-102A) (¥7.2 billion)
Strengthen the continuous warning and surveillance posture in the southwestern region



FPS-5



FPS-7



Mobile Warning and Control
Radars (TPS-102A)

- Development of synthetic training environment for Aegis vessel operation (¥7.3 billion)
Develop more realistic synthetic training system and environment to achieve both the maintenance/improvement of crews' skills and decreasing the burden of training

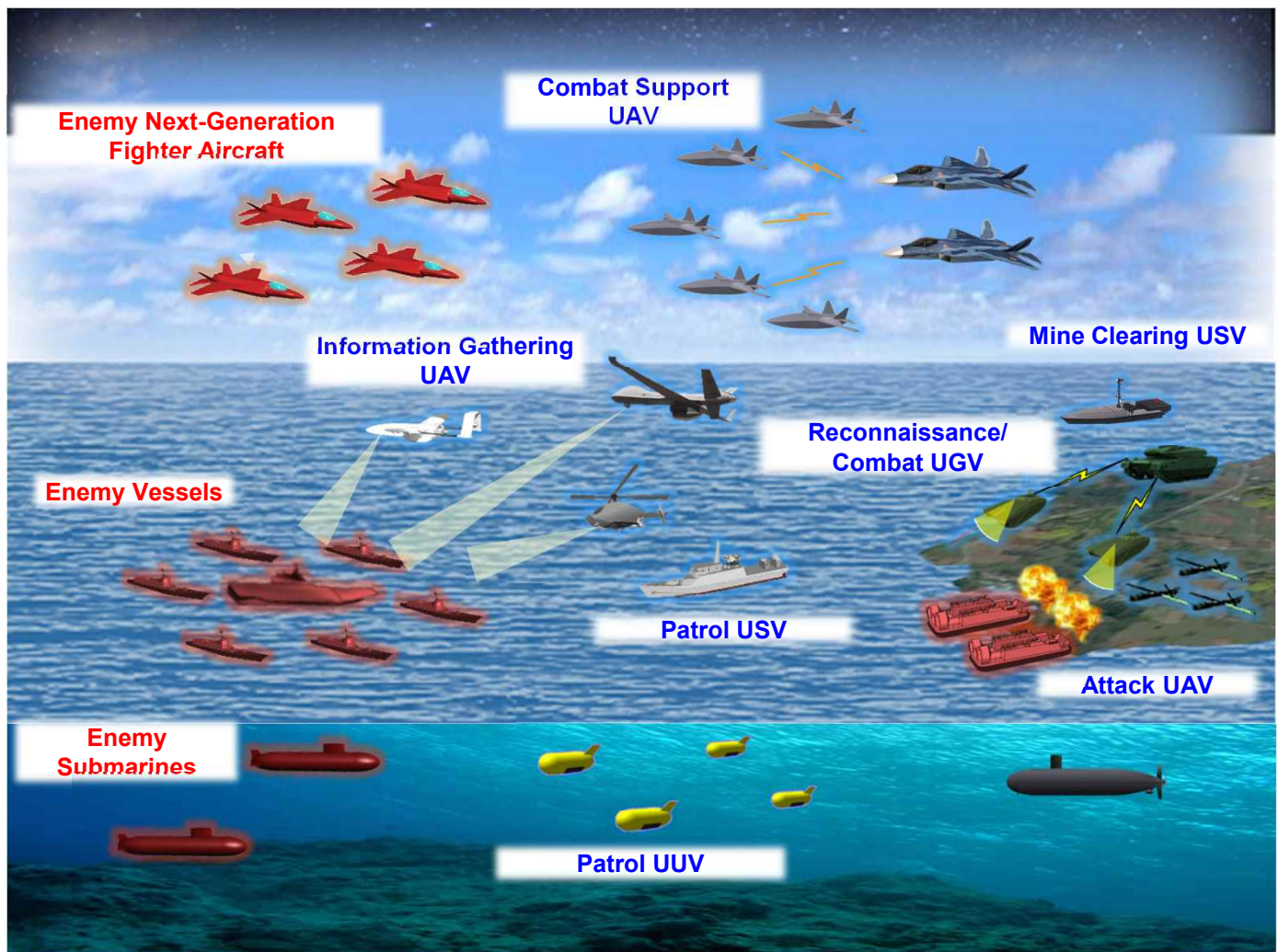
IV: Main Programs

3 Unmanned Defense Capabilities

Approx. ¥1,271.3 billion (Approx.¥1,242.0 billion excluding other areas)

- Unmanned assets are innovative game-changers that can gain asymmetrical superiority in the air, on the water, and underwater while minimizing human loss. It is important to overcome such limitations as long-term continuous operation, and establish seamless ISR posture.
- It is necessary to promptly acquire and start operating unmanned assets such as unmanned aircraft, vessels and vehicles.

Unmanned Assets in Ground/Maritime/Air/Underwater domains (conceptual image)



IV: Main Programs

Strengthening Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) Functions

- Acquisition of Upgraded UAV (mid-field) (6 sets: ¥9.6 billion)
Acquire upgraded UAV (mid-field) equipped with synthetic aperture radar (SAR) capable of target

※ UAV : Unmanned Aerial Vehicle



UAV(mid-field)
(conceptual image)

- Acquisition of UAV (near-field) (41 sets: ¥1.4 billion)
Acquire UAV (small-field) which contributes to commanders' decision making and firing by gathering information from the airspace

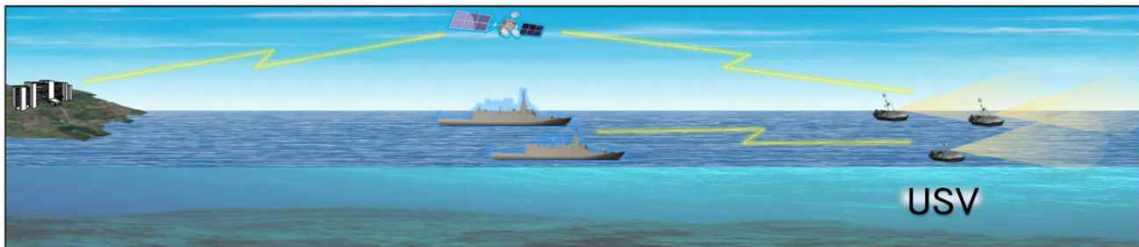


UAV (near-field)
(conceptual image)

- Demonstration of test USV (¥16.0 billion)

Acquire and verify foreign USV as test equipment in order to promptly extend knowledge in USV operations as well as expedite development of domestic USV

※ USV : Unmanned Surface Vehicle



Demonstration of test USV (conceptual image)

- Research on multi-purpose combat-support USV (¥24.5 billion)

Conduct research on stealth USV with combinations of reconnaissance/warning/surveillance and anti-ship missile launch capabilities, which can support manned naval vessels



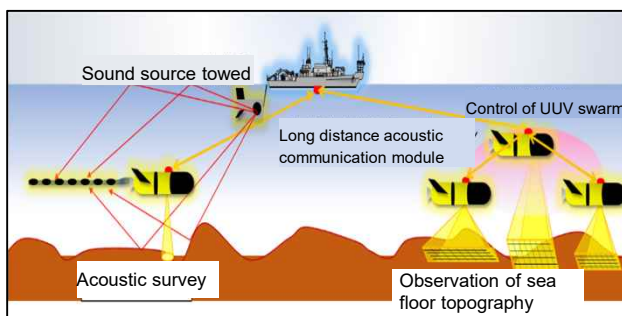
Research on multi-purpose
combat-support USV (conceptual image)

- Research on UUV for maritime observation

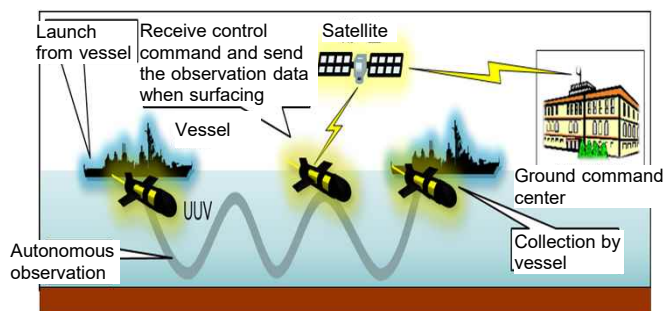
For more efficient maritime observation, the MOD will conduct

- Research on UUV (for floor topography/acoustic survey) to consider its introduction
- Performance testing of UUV (for observation of water temperature structure) using the test sample acquired in FY2023

※ UUV : Unmanned Underwater Vehicle



Research study concerning UUV for observation of sea
floor topography/acoustic survey (conceptual image)



Performance testing of UUV for observation of water
temperature structure (conceptual image)

Acquisition of Unmanned Assets with Transport Functions

- Demonstration of Transport UAV (Medium-sized) (¥900 million)
Demonstration of transport UAV for promptly providing supplies to widely dispersed units, remote bases, etc.



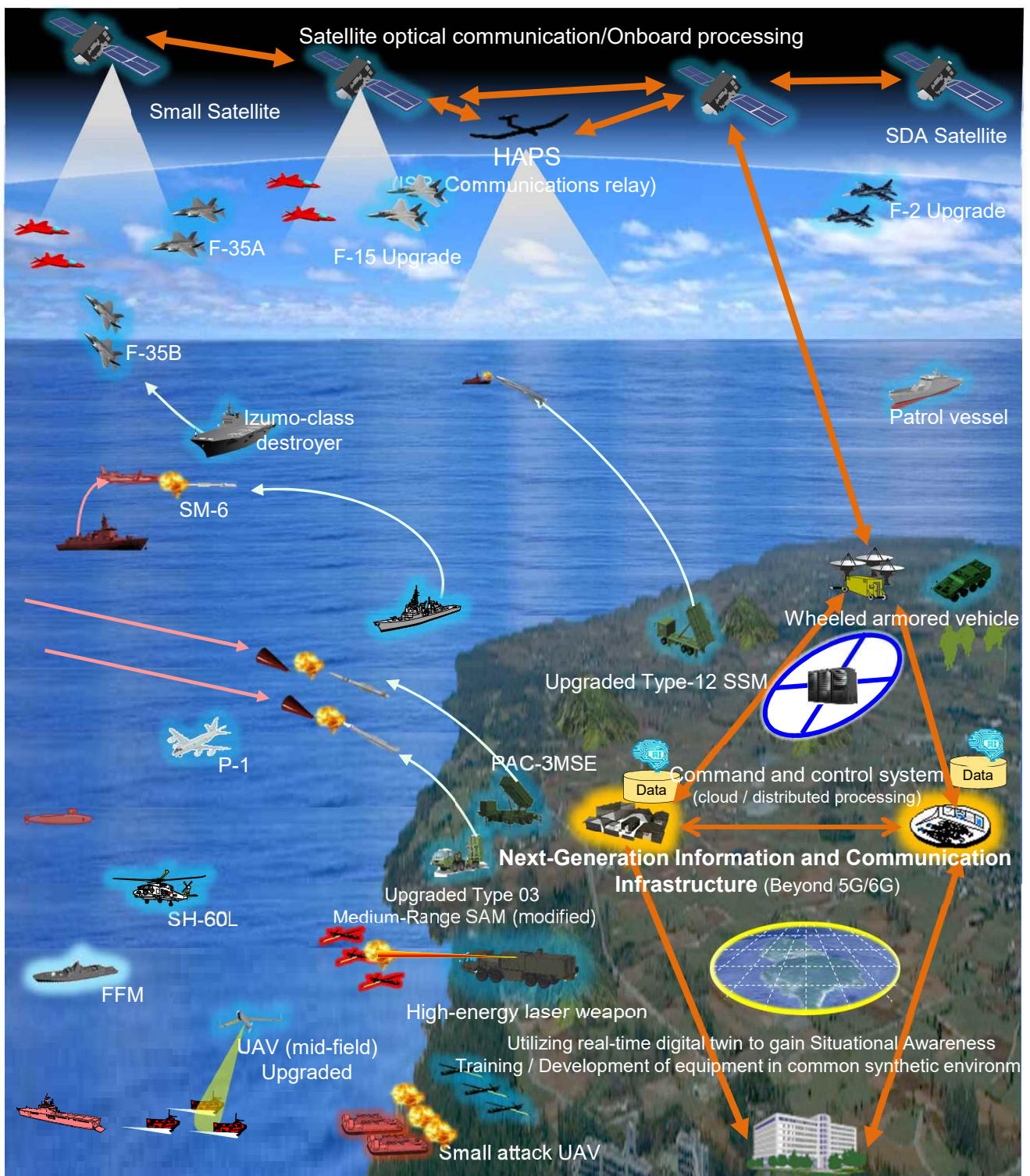
Transport UAV (medium-sized)
(conceptual image)

IV: Main Programs

4 Cross-Domain Operational Capabilities

- In addition to the ground, maritime, and air domains, it is necessary to fundamentally strengthen capabilities in **combinations of space** (information gathering functions through the use of satellites), **cyber** (security measures and training of cyber personnel), and **electromagnetic domains** (electronic warfare and electromagnetic management function) etc., in order to ensure asymmetrical superiority.

Future Cross-Domain Operations (conceptual image)



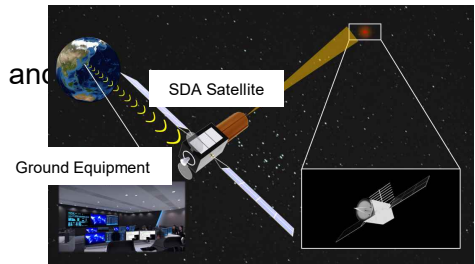
IV: Main Programs

(1) Space Domain **Approx.¥165.4 billion (Approx.¥114.5 billion excluding other areas)**

- The space domain is now the foundation of our citizen's daily lives and security, and it is extremely important for Japan to ensure superiority in space use.
- For this reason, **it is necessary to strengthen space operation capabilities** including information gathering and other capabilities which leverage the space domain.

Space Domain Awareness (SDA)

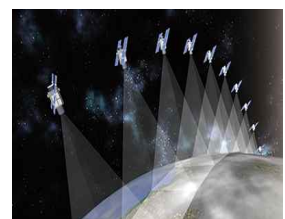
- Deployment of SDA Satellite (¥17.2 billion)
Launch service of SDA satellite (scheduled for launch in JFY26) and technical assistance in site activation, launch and post-launch checkup
- Establishment of Command and control services for space operations (¥9.6 billion)
Establish space operation command and control services to reinforce the operational base for space missions
- Study on Hosted Payload for enhancing SDA capabilities (¥200 million)
Study on the technical feasibility of utilizing the SDFs' sensors, etc. on geostationary orbit owned by other institutions (i.e. Hosted Payload) for enhancing SDA capabilities
- Optical Datalink Demonstration on Geostationary Orbit (¥5.0 billion)
Utilize commercial satellite providers for demonstration of optical datalink via geostationary orbit



SDA satellite (conceptual image)

Information Gathering Functions utilizing Space Domain

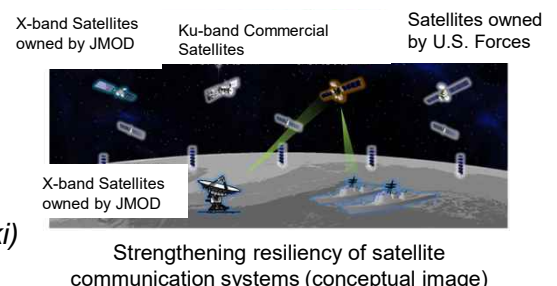
- Demonstration for HGV detection/tracking capabilities utilizing satellites (¥5.0 billion)
In-space demonstration of infrared sensors, etc. necessary for HGV detection and tracking, utilizing space experimental platforms of New Space-Station Resupply Vehicle (HTV-X)
- Acquisition of Data for Image Analysis (¥26.5 billion)
Collect information in regions surrounding Japan by utilizing various commercial satellites including high resolution optical satellites and small satellite constellations



Acquisition of imagery by small satellite constellation (conceptual image)

Resiliency in Space Use

- Resiliency Enhancement in Satellite Communication Systems (¥10.6 billion)
Deployment of onboard and ground equipment such as multi-band receivers in order to build up a system for seamless utilization of X-band defense communication satellite (*Kirameki*) and other commercial satellites



Strengthening resiliency of satellite communication systems (conceptual image)

IV: Main Programs

(2) Cyber Domain Approx. ¥230.3 billion (Approx. ¥218.5 billion excluding other areas)

- It is essential to acquire far-reaching response capabilities against increasingly advanced and sophisticated cyber attacks to establish a posture to assure the SDF's ability to perform its mission, and to support cyber defense in defense industry.
- In order to achieve this, the MOD/SDF will make following efforts: ① implementation of Risk Management Framework (RMF); ② protection of information systems; ③ enhancement of education and research functions; ④ fundamental reinforcement of cyber defense posture; and ⑤ promotion of cybersecurity measures in defense industry.

Implementation of Risk Management Framework (RMF) (¥42.9 billion)

By shifting its concept from transient “risk elimination” to continuous “risk management”, the MOD implements the “Risk Management Framework (RMF) in which risks are analyzed, assessed, and appropriately managed on a continuous basis even after the commencement of information system operations.

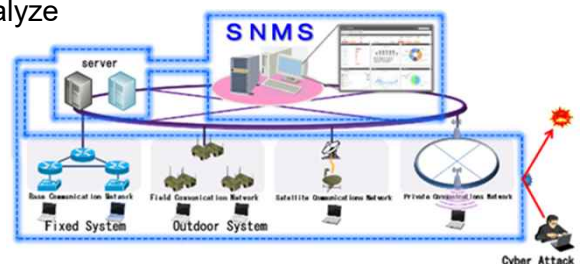


Risk Management Framework
(conceptual image)

Protection of Information Systems

Strengthen the protective posture for information systems including equipment and facility infrastructures.

- Introduction of “Zero Trust” concept (¥100 million)
Formulate the cyber security guidelines based on “Zero Trust” concept by transitioning from the traditional idea that perimeter security is sufficient to maintain the internal network safety
- Development of Cloud System (¥108.5 billion)
Develop a cloud system to integrate and standardize SDF systems that serve as a foundation for mission execution, and implement centralized cybersecurity measures.
- Development of Cyber Protection Analysis Equipment (¥1.2 billion)
Strengthen capabilities such as monitoring and assessment of cyber incident response devices which collect and analyze the techniques used in cyber attacks against the MOD
- Development of System Network Management System (SNMS) (¥13.8 billion)
Develop a system to centrally protect, monitor, and control all the JGSDF systems
- Development of threat hunting equipment (¥2.8 billion)
Develop threat hunting equipment for continuous search and detection of potential internal threats



System Network Management System
(conceptual image)

IV: Main Programs

Enhancement of Education and Research Functions in Cyber Domain

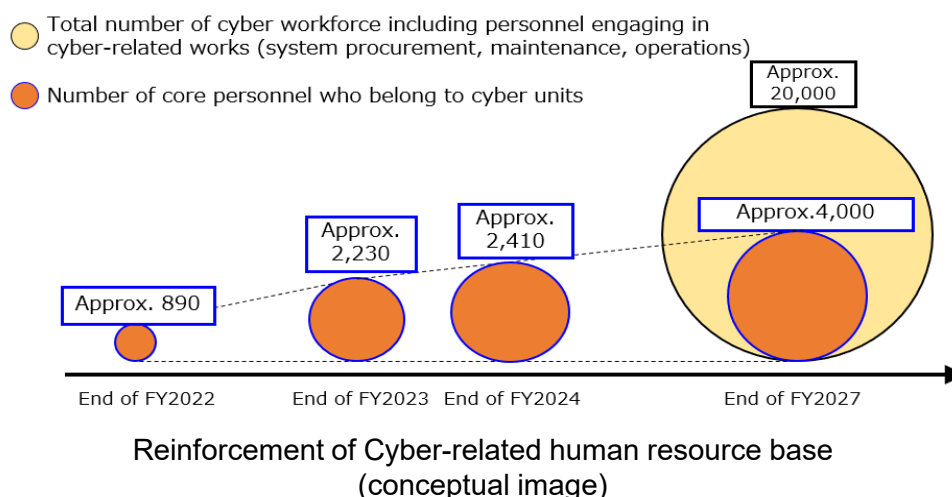
In order to strengthen cybersecurity posture, enhance functions to develop cyber workforce and promote research and development pertaining to cybersecurity.

- Expansion of cyber education
 - JGSDF System, Signal and Cyber School (¥2.3 billion)
Acquisition of equipment necessary for cyber education infrastructure
 - JGSDF High Technical School (¥200 million)
Acquisition of equipment necessary for specialized courses on system and cyber, etc.
 - National Defense Academy
 - Reorganize the Information Engineering Department into “Cyber and Information Engineering Department (provisional name)”
- Enhancement of research infrastructure on (cyber) security (¥200 million)
- Cyber education utilizing external sources (¥1.7 billion)
- Fostering collaboration with foreign countries in cyber domain (¥400 million)
- Research on Cyber Protection Technology for Equipment Systems (¥400 million)
Research on cyber protection technology to limit the damage caused by cyber attacks and continue the operation of equipment systems

Fundamental Reinforcement of Cyber Defense Posture

Review the cyber defense functions which the MOD/SDF should prepare, and expand necessary cyber workforce

- Enhancement of Posture of the Cyber Units
- Promotion of “Skilling Cyber Personnel”



Cybersecurity Measures in Defense Industry

- Programs for Reinforcement of Defense Production Base (¥8.6 billion)
Implement comprehensive and systematic cybersecurity measures not only on the MOD contractors but also on their subcontractors
- Research for the Application of “Standards on Cybersecurity Measures for Defense Industry” (¥1.2 billion)

IV: Main Programs

(3) Electromagnetic Spectrum Domain

- Due to the expanding use of electromagnetics in its range and purpose covering land, sea, air, outer space and cyber space, electromagnetic spectrum is now the front line of offense and defense in modern combat. **In light of this situation, securing superiority in the domain of electromagnetic spectrum is an urgent issue.**
- To achieve this, the MOD makes efforts in enhancing: ① **communication and radar jamming capabilities**; ② **counter EW capabilities**; ③ **EW capabilities**; ④ **response to small UAVs**; ⑤ **electromagnetic management functions, etc.**

Communication and Radar Jamming Capabilities

Improve capabilities of electronic jamming (to interfere with radio waves) and minimize/neutralize adversary's communication, detection, etc.

- Acquisition of Network Electronic Warfare System (NEWS) (1 set: ¥9.0 billion)
- Acquisition of counter air electronic warfare system (2 sets: ¥6.2 billion)
- Research on low-power communication interference technology (¥3.1 billion)
- Research on future EMP technology and equipment (¥9.5 billion) (see p.36)



Counter air electronic warfare system (conceptual image)

Counter EW Capabilities

Improve capabilities to minimize/neutralize adversary's electronic jamming against communication equipment and radars

- Acquisition of fighter aircraft (F-35A) (8 aircraft: ¥107.7 billion) (see p.25)
- Acquisition of fighter aircraft (F-35B) (7 aircraft: ¥125.6 billion) (see p.25)
- Upgrade of fighter aircraft (¥13.0 billion) [repost]

EW Capabilities

Improve capabilities to gather information necessary for electronic jamming and electronic protection

- Acquisition of Signals Intelligence Aircraft (RC-2) (1 aircraft: ¥49.2 billion)
 - ※ Separately allocate ¥14.2 billion to acquire avionics, etc.
- Development of EW aircraft (¥14.0 billion)



Signals intelligence aircraft (RC-2)

Response to Small UAVs

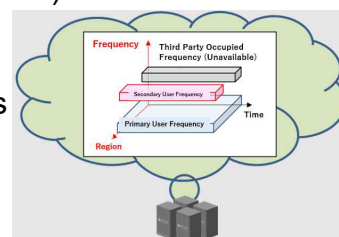
Promote research on directed-energy technologies such as high-energy laser and high-power microwave to strengthen response capabilities against small UAVs

- Research on high-energy laser (¥3.1 billion) (see p.35)
- Research on High Power Microwave (HPM) (¥2.6 billion) (see p.35)

Enhancement of Electromagnetic Management Functions

Enhance functions to track and manage the use of electromagnetics to properly conduct activities in the domain of electromagnetic spectrum

- Development of electromagnetic management functions (¥1.1 billion)



Development of electromagnetic management functions (conceptual image)

IV: Main Programs

(4) Ground / Maritime / Air Domains

Approx. ¥1378.7 billion (Approx. ¥1378.7 billion excluding other areas)

- Acquisition of Infantry Combat Vehicle (provisional translation) and Mobile Mortar Combat Vehicle (provisional translation) to team with mobile combat vehicle for mobile deployment against forces invading Japan
 - Acquisition of Infantry Combat Vehicle (provisional translation) (24 units: ¥24.6 billion)
 - Acquisition of Mobile Mortar Combat Vehicle (provisional translation) (8 units: ¥8.2 billion)



Infantry Combat Vehicle
(provisional translation)
(conceptual image)



Mobile Mortar Combat Vehicle
(provisional translation)
(conceptual image)

- Acquisition of Type-10 tank (10 units: ¥16.8 billion)
Acquire Type-10 tank to support divisions and brigades to comprehensively exert their firing, mobile operation and protection capabilities



Type-16 mobile combat vehicle

- Type-16 mobile combat vehicle (19 units: 17.1 billion)
Acquire Type-16 mobile combat vehicle which can be transported by aircraft and has improved on-road mobility

- Acquisition of Type-19 155mm Wheeled Self-propelled Howitzer (16 units: ¥15.1 billion)
Acquire Type-19 155mm wheeled self-propelled howitzer capable of mobile and more rapid operations as a successor to the current FH70 155mm howitzer



Type-19 155mm wheeled
self-propelled howitzer

- AMV (Armored Personnel Carrier) (28 units: ¥20.3 billion)
Acquire armored AMV (armored personnel carrier) as a successor to the current Type-96 armored personnel carrier



AMV
(Armored Personnel Carrier)

- Amphibious Minefield Clearing System (2 sets: ¥1.0 billion)
Acquire amphibious minefield clearing system to dismantle mines along the coastline prior to landing in amphibious operations

- Type-20 5.56mm rifle (9,927 guns: ¥3.3 billion)
Acquire Type-20 5.56mm rifle as a successor to the current Type-89 5.56mm rifle which will be individually carried by SDF personnel and used for close combat operations

- Combat Clothing Set (¥14.8 billion)
Acquire combat clothing set to improve personnel's ability to operate in the field under various circumstances, as well as to hide from enemies' monitoring and observation, and protect themselves from fire and shells



Combat clothing set

IV: Main Programs

- Ship-building of New FFM (2 ships: ¥174.7 billion)

New FFM (Frigate Mine Multi-purpose) with improved operational capabilities which can load long-range missiles and have better anti-submarine capability (displacement: 4,500 tons)



New FFM (conceptual image)

- Ship-building of submarine (1 ship: ¥95.1 billion)

Submarine (the eighth Taigei-class submarine with 3000-ton displacement) with enhanced detection, etc. capabilities to effectively conduct information gathering, warning and surveillance activities



Taigei-class submarine

- Ship-building of new support ship (1 ship: ¥82.5 billion)

New support ship with improved underway replenishment capabilities which can help destroyers continue their missions in any situation (displacement: 14,500 tons)



New support ship
(conceptual image)

- Ship-building of minesweeper (1 ship: ¥26.2 billion)

Minesweeper (the sixth Awaji-class minesweeper with 690-ton displacement) with enhanced response capabilities against naval mines including deeper ones



Awaji-class minesweeper

- Acquisition of fixed-wing patrol aircraft (P-1) (3 aircraft: ¥103.9 billion)

P-1 aircraft with improved flight performance and enhanced detection, identification, and information processing, etc. capabilities compared to the existing P-1



Fixed-wing patrol aircraft
(P-1)

- Acquisition of patrol helicopter (SH-60L) (6 aircraft: ¥66.9 billion)

Patrol helicopter (SH-60L) with improved onboard systems and flight performance to ensure superiority in anti-submarine warfare over highly stealthy foreign submarines



Patrol helicopter
(SH-60L)

IV: Main Programs

- Acquisition of fighter aircraft (F-35A) (8 aircraft: ¥107.7 billion)
[repost]

Secure air superiority by acquiring F-35A with excellent electronic warfare capability

- ※ As it was confirmed that it would be less costly for the next five fiscal years to have domestic companies perform final checkout and assembly (FACO) than to import completed aircraft, domestic companies continue performing FACO for F-35A acquired from FY2023 to FY2027



Fighter aircraft (F-35A)

- Acquisition of fighter aircraft (F-35B) (7 aircraft: ¥125.6 billion)
[repost]

- Improve operational flexibility of fighters by acquiring F-35B which has excellent electronic warfare capability and can perform short field take-off and vertical landing

- Establish “Temporary F-35B Fighter Squadron (provisional name)”



Fighter aircraft (F-35B)

- Upgrade of fighter aircraft (F-15) (¥13.0 billion)
Enhancement of anti-electronic capabilities, increase of the amount of ammunitions which can be loaded on the aircraft



Fighter aircraft (F-15)

- Upgrade of fighter aircraft (F-2) (8 aircraft: ¥12.1 billion)
Upgrade of anti-ship attack capabilities, network functions, etc.



Fighter aircraft (F-2)

IV: Main Programs

5 Command-and-Control / Intelligence-related Functions

Approx.¥686.2 billion (Approx.¥448.8 billion excluding other areas)

- Swift and definitive command-and-control requires the ability to **share information in real time** through **resilient networks**.
- It is necessary to establish a robust information-gathering posture by **constantly grasping military trends** in the areas surrounding Japan, as well as fundamentally reinforcing intelligence capabilities **to respond to integrated information warfare with special regards to the cognitive dimension**, etc. as seen in Russia's aggression against Ukraine.
- The MOD/SDF promote the **introduction and extensive application of AI** in these areas.

Enhancement of Command and Control Functions

- Development of central command system (¥23.2 billion)
Establish the next central command system with enhanced functions of the SDF's command and control

Enhancement of Information Gathering and Analysis Systems

- Development of Information gathering and analysis systems
Establish information gathering and analysis systems especially on military trends
- Increase of Defense Attachés
Newly dispatch DAs to Estonia, Cambodia, and Sri Lanka, and increase the number of DAs in Vietnam (one each)
(80 including 2 Representatives at 52 Embassies, as of the end of JFY2024)
- Development of intelligence systems (¥78.0 billion)
Develop various information systems to swiftly provide information which contributes to policy decisions and the SDF unit operations
- Development and maintenance of equipment for information gathering and analysis (¥267.4 billion)
Develop necessary equipment to constantly and continuously gather, process, and analyze information on military trends, etc. in the vicinity of Japan
- Gathering and organizing intelligence information (¥32.5 billion)
Gathering and organizing various intelligence information on situations in areas surrounding Japan

Responses to Integrated Information Warfare with Special Regards to the Cognitive Dimension

- Establish information gathering/analysis/dissemination posture towards integrated information warfare
- Establish automatic open source and social media information collection and analysis capabilities utilizing AI (¥4.6 billion)
- Utilize future forecasting services for estimating the security situation (¥2.1 billion)

IV: Main Programs

6 Mobile Deployment Capabilities / Civil Protection

Approx. ¥595.1 billion (Approx. ¥595.1 billion excluding other areas)

- Given the geographical characteristics of Japan, it is necessary to **build up capabilities to rapidly deploy units**, as well as to set up **necessary foundation for the deployment**.
- The MOD/SDF **strengthen transportation capabilities by acquiring various transport assets** such as vessels, aircraft, and helicopters.

Reinforcement of Transportation Capabilities

- Establishment of “Maritime Transport Units” (provisional name)
Jointly establish “Maritime Transport Units” to enhance mobile deployment capabilities in the southwestern region

Acquisition of Transport Assets

- Acquisition of Maneuver Support Vessel (MSV) (3 ships: ¥17.3 billion)

- Acquire utility craft to swiftly deliver units and supplies to remote islands in the southwestern region, etc.
- Plan to deploy the MSVs at “Maritime Transport Units” (provisional name)



MSV (conceptual image)

- Acquisition of transport and utility helicopters
Strengthen capabilities to swiftly deploy and maneuver required units and supplies in bases and regions nationwide including remote islands, at all phases from peacetime to contingencies
 - Transport helicopter (CH-47JA) (12 aircraft: ¥222.0 billion)
 - Transport helicopter (CH-47J) (5 aircraft: ¥108.1 billion)
 - Utility helicopter (UH-2) (16 aircraft: ¥46.5 billion)



JGSDF CH-47JA



JASDF CH-47J



UH-2

Utilization of Private Maritime Transport Services

- Utilization of civilian transportation services (¥32.5 billion)
Award new contracts for 2 PFI ships following the expiration of currently in-service PFI ships in December 2025, in order to avoid any halt in transport operations utilizing private ships
- Enhancement of joint transportation readiness through PFI ships (¥2.1 billion)
Conduct transportation exercises and port-entry inspections for units and equipment using PFI ships



PFI ship (*Natchan World*)



PFI ship (*Hakuo*)

IV: Main Programs

7 Sustainability and Resiliency

- In order to facilitate the operations of the SDF, it is important to **secure ammunitions and fuels, increase the number of operationally available equipment** (resolve the shortage of parts), **improve resiliency of defense facilities** (renew existing facilities, construct ammunition depots), and **enhance operational infrastructures** (strengthen production capacities).

(1) Securing Ammunitions Approx.¥930.9 billion (Approx.¥406.8 billion excluding other areas)

- The SDF will promptly procure the required quantities of various ammunitions necessary for continuous unit operations (excluding ammunitions for “Stand-off Defense Capabilities” and “Integrated Air and Missile Defense”).

- Medium-Range Multi-Purpose Missile (¥6.0 billion)
Guided weapon necessary for firing by infantry units, etc.



Medium-range multi-purpose missile

- 155mm high explosive shell (¥5.3 billion)
Munitions necessary for firing by artillery units, etc.



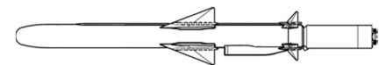
155mm high explosive shell

- 5.56mm bullet (¥5.2 billion)
Munitions necessary for firing with an individual weapon



5.56mm bullet

- Type 17 Ship-to-Ship Missile (¥7.7 billion)
Type 17 ship-to-ship missile with extended range from the previous missiles to equip destroyers, etc.



Type 17 Ship-to-Ship missile
(conceptual image)

- **New Ship-to-Air Missiles (¥22.2 billion)**
Long-range ship-to-air missile to enhance the air defense capabilities for destroyer units



New Ship-to-Air missile
(conceptual image)

- Medium-Range Air-to-Air Missile (AIM-120) (¥41.1 billion)
Medium-Range Air-to-Air Missile to equip F-35A/B and F-15UG



AIM-120 (conceptual image)

- Medium-Range Air-to-Air Missile (AAM-4B) (¥15.8 billion)
Medium-Range Air-to-Air Missile to equip F-2 and F-15



AAM-4B (conceptual image)

- Air-to-Ship Missile (ASM-3A) (¥11.4 billion)
Air-to-Ship Missile to equip F-2UG



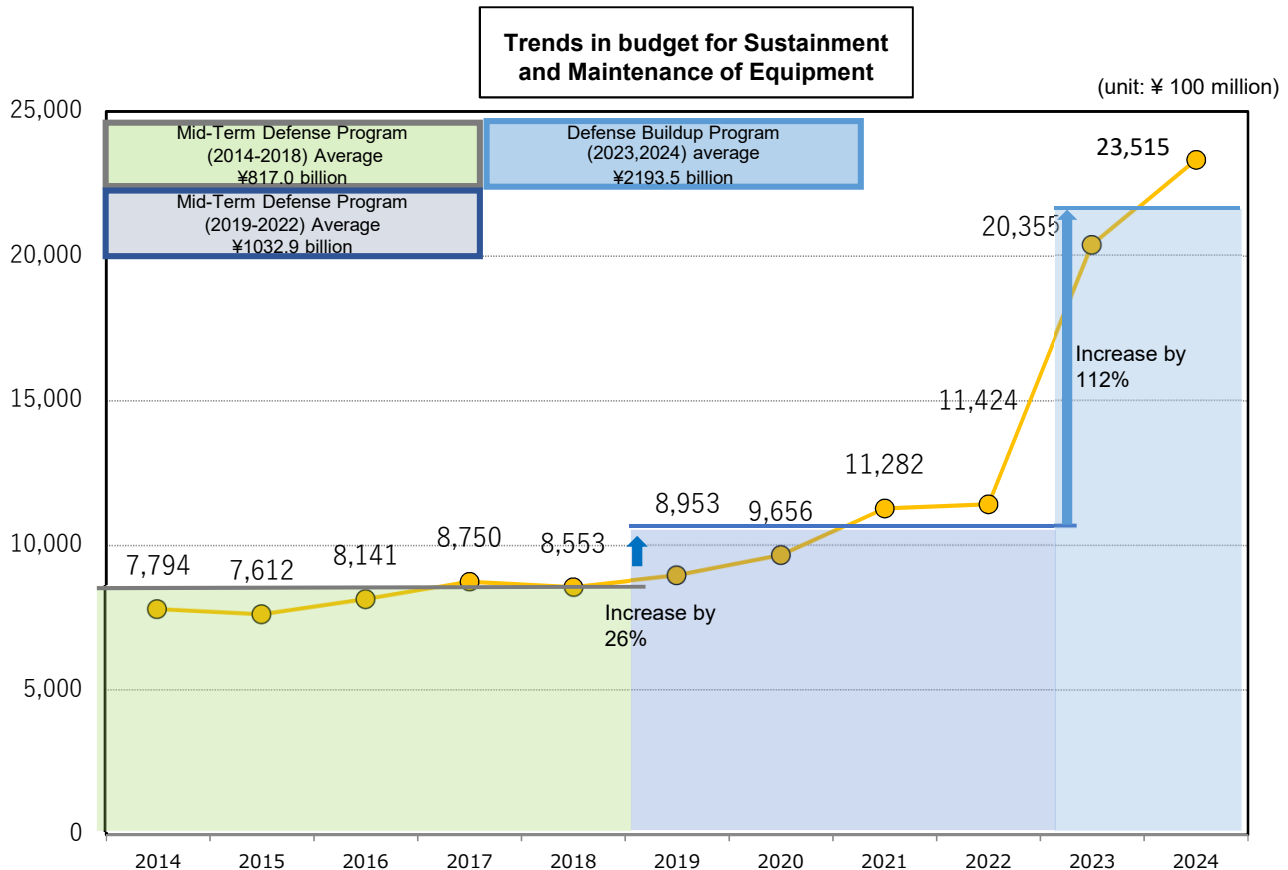
ASM-3A (conceptual image)

IV: Main Programs

(2) Sustainment and Maintenance of Defense Equipment

Approx. ¥2 trillion 351.5 billion (Approx. ¥1 trillion 904.1 billion excluding other areas)

- Secure the budget for ensuring sufficient spare parts and maintenance in order to solve the state where defense equipment are not operationally available due to parts shortage, and thus taking full advantage of existing equipment as well as unit capabilities



○ Promotion of Comprehensive Contracts including PBL

※ PBL (Performance Based Logistics)

Compared to contracting on a case-by-case basis for necessary repairs and procurement of components, the contracts are focused on results of service, such as reduction of repair time and availability of inventory, and awarded on a comprehensive basis covering a defined period.

- Sustainment and Maintenance of transport vessels (¥1.7 billion)
Start sustainment and maintenance of logistics support vessels (LSV) and landing craft utility (LCU) from JFY24 utilizing PBL



Logistics support vessels (LSV)
(conceptual image)

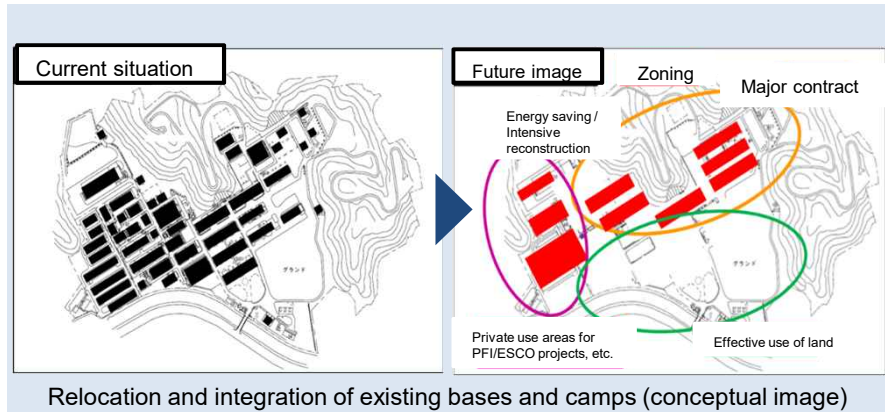
IV: Main Programs

(4) Improving Resiliency of Defense Facilities

Approx.¥804.3 billion (Approx.¥804.3 billion excluding other areas)

○ Renovation of Existing Facilities (¥391.6 billion)

Provide protective measures including wear- and earthquake- resistance through promoting to reinforce building structures, relocate and integrate existing facilities

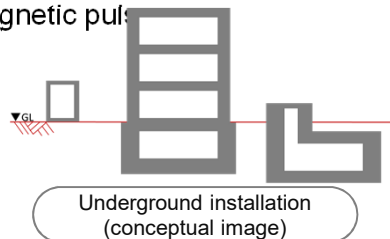


○ Measures against natural disasters such as tsunami and flood (¥12.1 billion)

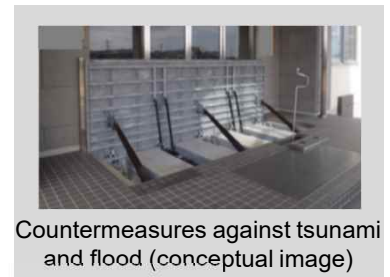
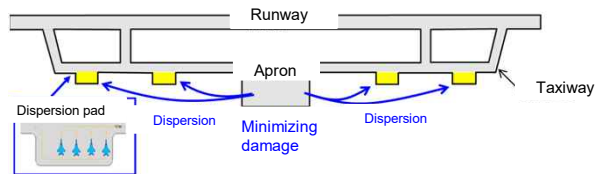
Countermeasures against tsunami and flood to maintain and enhance functions in the event of a large-scale natural disaster

○ Underground installation of main headquarters, etc.

Underground installation of main headquarters, installation of dispersal pads for fighter aircraft, protective measures against electromagnetic pulse



Minimizing damage by dispersion



○ Construction of ammunition depots (¥22.1 billion)

Construct necessary facilities including depots in preparation for the acquisition of various ammunitions

○ Construction of facilities associated with establishment of new units and introduction of new equipment (¥360.8 billion)

- Construction of facilities accompanying the establishment of JGSDF Saga Camp (tentative name)

- Dredging, pier reconstruction and facility development at ports in Sasebo area (Sakibe-East District (tentative name)) for mooring large destroyers, etc. of JMSDF (¥25.7 billion)

- Construction of JASDF facilities for F-35 (A/B) (¥26.4 billion)

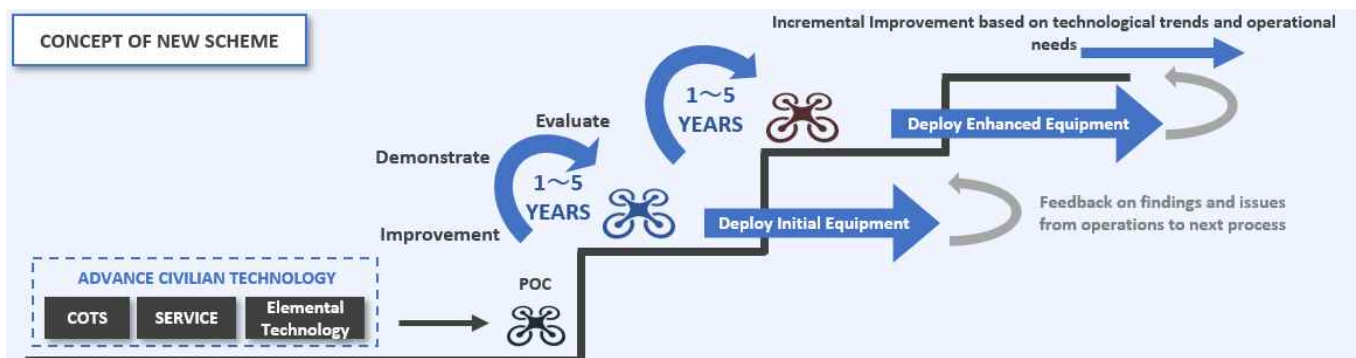


V Common Infrastructure

1 New Efforts to Accelerate the Deployment of Defense Equipment

- In light of the current security environment, where military use of cutting-edge civilian technologies is changing the modes of warfare, it is necessary to fundamentally reinforce defense capabilities at an epoch-making speed, by flexibly incorporating advanced civilian technologies making remarkable advances in private sectors and off-the-shelf products.
- To accelerate the deployment of defense equipment, the MOD/SDFs will solicit for proposals (*1) from defense industry and seek for collaboration with startup companies, domestic research institutes and academia, to actively incorporate research results on advanced technologies into R&D of defense equipment as well as leverage civilian technologies, off-the-shelf products and foreign equipment.
- As a part of these initiatives, the MOD launched a new scheme to accelerate the deployment of defense equipment targeting at the deployment within 5 years and full-fledged operation in approximately 10 years. This includes solicitation for proposals in such domains as unmanned defense capabilities, as well as intensive iterations of demonstration, evaluation, and improvement.

(*1) MOD/SDF is open for proposals that contribute to accelerate the deployment of defense equipment



【Examples of the Projects under the New Efforts】

➤ Unmanned Defense Capabilities

- Demonstration of Transport UAV (medium-sized) (¥900 million) [repost]



Transport UAV (medium-sized)
(conceptual image)

➤ Space Domain

- Optical Datalink Demonstration on Geostationary Orbit (¥5.0 billion) [repost]
- Demonstration for HGV detection/tracking capabilities utilizing satellites (¥5.0 billion) [repost]

➤ Information Warfare

- Establish automatic OSINT collection and analysis capabilities utilizing AI and systems for automatically collecting social media information (¥4.6 billion) [repost]

V Common Infrastructure

2 Reinforcement of Defense Production Base

Approx.¥97.8 billion (Approx.¥88.6 billion excluding other areas)

- As a part of our defense buildup, the MOD will fundamentally reinforce and maintain defense production and technology bases as a virtually integral part of defense capability itself and construct robust and sustainable defense industry by expediting countermeasures against various risks, as well as expanding defense equipment market.

(1) Building Robust and Sustainable Defense Industry

- Grounding Initiatives for Reinforcement of Defense Production Base (¥28.1 billion)
Implement initiatives to provide companies with readiness for various risks concerning steady acquisition of defense equipment from the viewpoint of maintaining and strengthening domestic defense production and technology bases
 - (a) Reinforcing resilience of supply network (supply chain)
 - Promote initiatives such as diversification of supply sources and in-company R&D projects seeking for parts with stable supply source in order to deal with supply chain risks (¥1.0 billion)
 - (b) Improving manufacturing process efficiency
 - Increase the efficiency of defense equipment manufacturing process by introducing advanced technologies such as 3D printing and AI (¥10.1 billion)
 - (c) Cybersecurity enhancement
 - Expedite comprehensive and systematic cybersecurity measures not only for the MOD contractors but also for their subcontractors (¥8.6 billion) [repost]
 - (d) Support for business succession
 - Promote smooth business succession on company's withdrawal from defense industry (¥8.4 billion)



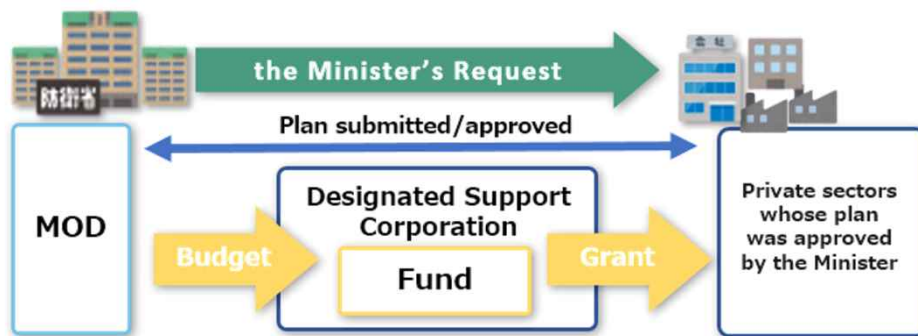
- Creating the database of results on supply chain survey (¥1.1 billion)
The MOD and ATLA promptly and appropriately gather/manage/analyze information on supply chain on the consolidated database, and thus track the latest status, issues, etc. in supply chain

V Common Infrastructure

- Research on maintaining and improving the bases for defense-unique conventional technologies (¥2.4 billion)
- Research for the Application of “Standards on Cybersecurity Measures for Defense Industry” (¥1.2 billion)[repost]
Conduct studies on necessary information for examining effectiveness and vulnerability of companies’ cybersecurity systems and equipment

(2) Promotion of Defense Equipment Transfer through Public-Private Partnership

- Budget for the Fund to Facilitate Defense Equipment Transfer (¥40 billion)
In order to conduct appropriate equipment transfer from the perspective of national security, the MOD budgets the fund to allocate grants to companies when they are requested by defense minister to adjust specifications and performance of the equipment to be transferred



- Feasibility Studies for Overseas Transfer of Defense Equipment (¥200 million)
Investigate the potential needs of target countries in cooperation with private sectors in order to work on proposals for transfer of defense equipment



*ATLA Pavilion at LIMA'23
in Malaysia*

- Displays at defense equipment exhibitions (¥300 million)
Participate in international defense equipment exhibitions to promote defense equipment developed in Japan and superior technology of Japanese Small and Medium-sized Enterprises (SMEs)



Osprey (V-22)

(3) Others

- Expansion of the Common Maintenance Platform for Ospreys of Japan and the U.S.
Continue construction of new hangars for the Planned Maintenance Interval (PMI) for Ospreys of Japan and the U.S. at JGSDF Camp Kisarazu

V Common Infrastructure

3 Research and Development

Approx.¥835.8 billion (Approx.¥232.1 billion excluding other areas)

- Transformation of approaches to warfare is accelerating due to the rapid advancement of science and technology. In order to promptly materialize effective response capabilities for future warfare, the MOD will intensively invest in equipment/technologies directly related to future ways of combat, and drastically shorten research and development period by introducing novel methods into the research and development process.
- Since gaps in technologies can determine the outcome of warfare, in order to secure technological superiority in the future and materialized advanced capabilities ahead of other countries, the MOD will incorporate a wide range of civilian leading technologies. In addition, the MOD will realize defense innovation to create future ways of warfare by intensively investing in technologies which can be directly used for defense purpose and by boldly tackling challenges in unknown technology areas, in collaboration with projects by other ministries and agencies.

(1) Reinforcement of Foundations for Defense Innovations and Innovative Equipment

○ Establishment of New Research Institution

In order to fundamentally reinforce foundations for defense innovations and equipment, the MOD establishes a new research institution within ATLA to materialize rapidly advancing technologies into innovative capabilities as potential game-changers, by taking novel approaches and methods learning from initiatives at DARPA (Defense Advanced Research Projects and Agency) and DIU (Defense Innovation Unit)

The Concept of New Research Institution

① Achieving Challenging Goals

Aim to create new innovative defense functions and technologies that will significantly change the future warfare.

② Active utilization of external human resources & Simple decision making

Pursue a flat organizational structure that maximizes the authority of project manager (PM) while actively utilizing external researchers and engineers.

③ Emphasis on Speed

Evaluate research results at an early stage and quickly decide whether or not to continue the project.

- Innovative Science & Technology Initiative for Security (¥10.4 billion)

Promote the “Innovative Science & Technology Initiative for Security” program in which ATLA publicly seeks and commissions basic researches on innovative and emerging technologies to external institutions like universities

- “Breakthrough Research” (provisional name) (¥11.0 billion)

The new research institution promotes “Breakthrough Research” (provisional name) to materialize new innovative functions and technologies for defense initiative. In “Breakthrough Research” (provisional name), we will take risks to achieve the challenging goals rapidly for changing the future warfare.

- Bridging Research (¥19.6 billion)

Out of various government- and commercially- funded researches, select and invest in promising technologies with the potential to be utilized for future defense applications including innovative equipment

V Common Infrastructure

(2) Stand-off Defense Capabilities

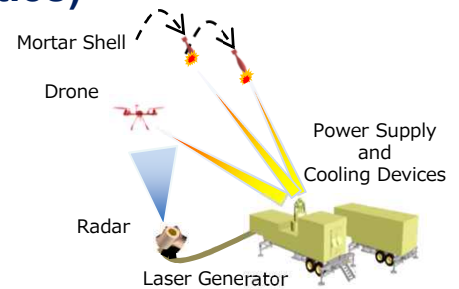
- Development of new Surface-to-Ship/Surface-to-Surface precision-guided missiles (¥32.0 billion)
- Hypersonic Aerodynamic and Propulsion Test Unit (¥54.9 billion)
Install hypersonic aerodynamic and propulsion test unit to Chitose Test Center to conduct the performance assessment of scramjet engines for hypersonic missiles
 - ※ Scramjet engine : Jet engine which relies on combustion in supersonic airflow
¥26.3 billion is separately allocated for other related costs (facility construction).

(3) Response Capabilities against HGV, etc. (Integrated Air and Missile Defense Capabilities)

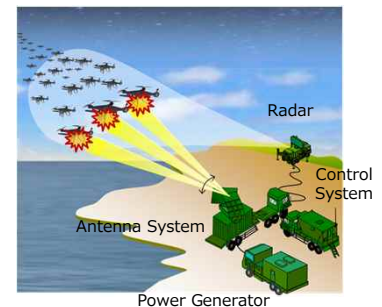
- Japan-U.S. Cooperative Development of GPI (¥75.0 billion) [repost]

(4) Counter – Drone / Swarm Attack Capabilities (Integrated Air and Missile Defense Capabilities)

- Research on High-energy Laser (¥3.1 billion) [repost]
Conduct research on technology to intercept aerial threats by high-energy laser and acquire lower-cost, more speedy response capabilities against drones
 - ※ HPM : High Power Microwave
- Research on High-power Microwave (HPM) (¥2.6 billion) [repost]
Continue research on technologies to neutralize drones, etc. by HPM radiation and install system link functions for operational validation in units



Research on high-energy laser (conceptual image)



Research on HPM (conceptual image)

(5) Unmanned Defense Capabilities

- Development of Unmanned Amphibious Vehicle (¥21.1 billion)
Development of unmanned amphibious vehicle which can land on any shore of islands for transportation of supplies from the sea to ground units
- Research on Multi-purpose Combat-support USV (¥24.5 billion) [repost]
- Study on Utilization of Unmanned Amphibious Flying Boat (¥100 million)
Study on utilization and technical limitations of unmanned amphibious flying boat with take-off and landing capabilities from the surface of water



Unmanned Amphibious Vehicle (conceptual image)

V Common Infrastructure

(6) Next-Generation Fighter Aircraft

- Development of the next-generation fighter aircraft (¥63.7 billion)
Continue on preliminary design of the aircraft to promote the joint development by Japan, UK and Italy, while conducting detailed design of the engine, etc.
- Research on UAVs which collaborate with the next-generation fighter aircraft (¥4.9 billion)
Conduct research on AI technologies necessary to realize combat-support UAVs which collaborate with crewed aircraft such as the next-generation fighter aircraft
- Contribution to an international organization for the joint development of the next-generation fighter aircraft (¥4.0 billion)
Make contribution to an international organization which will be established by Japan, UK and Italy to efficiently advance the joint development of the next-generation fighter aircraft
- Development of next-generation medium-range Air-to-Air Missile (¥18.4 billion)
Develop next-generation medium-range air-to-air missile to equip the next-generation fighter aircraft in order to conduct effective responses against airborne threat



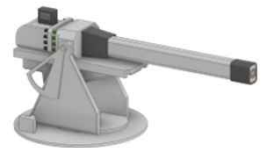
Development of the next-generation fighter aircraft (conceptual image)



Next-generation medium-range air-to-air missile (conceptual image)

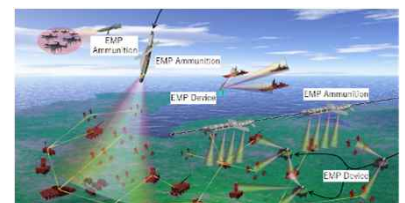
(7) Reinforcement of Other Deterrence Capabilities

- Research on future railgun (¥23.8 billion)
Conduct research on future railgun capable of firing projectiles at high muzzle velocity to improve the intercepting capability against various airborne threats
- Research on modernization of armored vehicle (¥2.4 billion)
Conduct technical studies on modernization of vehicle structure including improved protection performance, with an eye to the latest R&D, trends in foreign countries and potential for upgrades of armored vehicle
- Research on future EMP technology and equipment (¥9.5 billion) [repost]
Develop technologies related to EMP equipment and EMP munitions which emit strong electromagnetic pulse and neutralize sensors and information systems of adversary's units
※ EMP: ElectroMagnetic Pulse



Research on future railgun (conceptual image)

Research on future EMP technology and equipment (conceptual image)



- Development and maintenance of network facilities and networks for higher security level (¥27.8 billion)
Develop networks and facilities for higher security level which meet international standards to research and develop aircraft and other defense equipment
- Establishment of airworthiness certification system to meet the global standards (¥15.0 billion)
Establish the airworthiness certification system for aircraft developed by the MOD to meet the global airworthiness standards

V Common Infrastructure

4 Elements Supporting Defense Capabilities

- In order to support accomplishing the SDF missions, it is necessary to promote such measures as **reinforcement of human resource base** (securing human resources, improving personnel treatment, utilizing human resources of private sectors, etc.) and **enhancement of medical functions** (at SDF hospitals, etc.).

(1) Reinforcement of Human Resource Base

1 Measures to Secure Excellent Human Resources

A. Enhancement and Reinforcement of Recruitment

Ensure stable employment of excellent human resources despite a severe recruitment environment by enhancing and reinforcing recruitment activities

- Digital and online recruitment (¥600 million)
Increase online advertisement such as PR clips and banner ADs which can attract the attention of eligible job-hunters
- PRs and advertisement for job changers (¥60 million)
Utilize career change websites, open information booths at career change forums, and create recruitment brochures for job-changers to campaign the job of SDF personnel as a career option
- Expansion of large-scale, hands-on PR (¥50 million)
Conduct recruitment activities such as training experiences at major camps to publicize a wide range of operations carried out by the SDF personnel
- Reinforcement of the Provincial Cooperation Offices (¥1.4 billion)
Increase the number of part-timers to allow recruiters to focus on recruiting activities
- Expansion of the SDF Scholarship Student System (¥40 million)
Expand the eligibility of the SDF Scholarship Student System to secure excellent human resources in a timely manner
※ Academic scholarship (¥54,000 per month) for (university) students who wish to work for the SDF in the future



Design image of PR clips and banner ADs

- Expansion of positions for non-fixed-term SDF personnel

B. Enhancement and Reinforcement of Re-employment

Support

- Enrichment of career guidance programs (¥30 million)
 - Newly add sessions on interpersonal skills (i.e. communication skills) and actual experiences of former SDF personnel who got jobs at private companies
 - Expand internship opportunities to fixed-term SDF personnel
- Opportunities of vocational training (¥800 million)
Newly add (e-learning) subjects on IT-related (network) qualifications



Lectures for fixed-term SDF personnel (example)

C. Harassment Prevention Measures

- Expansion and improvement of the program (e.g. educational opportunities of all kinds) developed based on the recommendation of the MOD's Committee of Experts on Harassment Prevention and Measures (¥80 million)
 - Outsourcing Harassment Hotline counselors
 - Group education on harassment prevention
 - Personnel management (including harassment prevention) training for newly assigned managers
 - Experts training program for better coaching
 - Receiving advice from attorneys on how to address harassment



Personnel at a lecture on harassment prevention

V Common Infrastructure

2 Securing Maritime Self-Defense Force Naval Vessel Crew

- Improving In-ship Communication Infrastructure (¥200 million)
 - Make radio and TV services (which are currently accessible in common areas such as mess hall) available on personnel's cellphones by refurbishing onboard wired radio and TV receivers and setting up wireless LAN network
 - Enable e-mail exchanges via personnel's cellphones from living quarters by installing radio and TV receivers and electronic home communication devices
 - Install electronic home communication devices on submarines in addition to surface vessels

3 Female Participation, Working Style Reform and Improvement of Living / Working Environments

A. Promotion of Further Participation of Female Personnel

- Infrastructures for better educational / living / working environments of the female SDF personnel (¥12.9 billion)
 - Creation of female-only areas in barracks
 - Improving living and working environments for female SDF personnel (renovations of lavatory and bathing facilities)
 - Creation of female-only quarters in submarines
- Hiring external counselors for female SDF personnel, provision of female uniforms, etc. (¥700 million)
- Stocking sanitary items (¥20 million)
 - Suffice the need for sanitary items in supplement to what personnel have prepared in order to remove concerns over the lack of sanitary items and provide secure working environment in emergency or restricted situations



Construction of barracks for female personnel



Stocking sanitary items (example)

- Major initiatives already in place
 - Expanding recruitment and appointment of female personnel
 - Creating female-only areas and quarters in barracks and vessels
 - Renovating male bathrooms into female bathrooms
 - Creating educational infrastructure for female SDF personnel

[Trend in Budgets Related to the Promotion of Women's Participation (Unit: 1 billion yen)]



B. Promotion of Working Style Reform

- Digitalization of administrative documents which can contribute to facilitate remote work (¥20 million)
- Promotion of paperless office and space-saving to create a better workplace
- Improvement of working environment for more efficient workflow including consideration to outsource a part of at-anchor operations to encourage vessel crews to take compensatory leave (¥400 million)
 - Research and study on at-anchor operations which can be entrusted to private companies
 - Supplying vessel crews with computers for more efficient work environment

C. Support for Balancing Work and Life

- Sustainment and improvement of workplace childcare facilities (¥200 million)

Create workplace childcare facilities reflecting personnel needs and local realities, and provide the supplies necessary for sustaining childcare services, to achieve work-life balance



Workplace childcare facility (J Kids' Sky Iruma Nursery School)

- Creation of workplace childcare facilities
- Supplies to workplace childcare facilities

V Common Infrastructure

- Supplies for Temporary Childcare during Emergency Visits to the Office (¥30 million)

Supplies and support for temporary childcare service available to personnel in SDF camps and bases at the time of an emergency operation such as disaster relief

- Provide safety mats, partitions, etc.
- Promote participation in courses on childcare skills
- Carry out drills for temporary childcare during emergency

- Test implementation of part-time childcare (sitter service) (¥40 million)

Implement the trial of part-time childcare (sitter service) to accommodate children of SDF personnel making use of rooms available at camps and other facilities



Temporary childcare for emergency
(personnel taking care of children during the drill)

D. Improvement of Living and Working Environment

- Construction and maintenance of defense facilities, provision of clothing and daily consumables

• Renovation and construction of housing necessary for introducing and reorganizing units as well as ensuring readiness (¥48.1 billion)

- Construction of barracks and other facilities (¥365.0 billion*)

(*including measures for more comfortable living and working environment (installation of small living rooms (2-3 people/room), universal toilets, and individualized shower rooms and changing rooms)

- Procuring equipment and daily consumables, etc. (¥13.5 billion*)

In procuring equipment and daily consumables, prioritize the items below

Procuring bedding sets to maintain the health and raise the spirit of SDF personnel (¥2.1 billion)

Preparing automatic grass-cutting machines for decreasing the burden on SDF personnel

(¥1.1 billion)

- Procuring uniforms, work clothes, and other clothing (¥22.7 billion)

• Infrastructures for better educational / living / working environments of the female SDF personnel (¥12.9 billion) [repost]

※ Prioritize the air-conditioning which has a direct impact on the health of SDF personnel (¥34.4 billion)

In addition, allocate necessary transportation fees (including tolls) to decrease the financial burden on SDF personnel and improve their working environment

E. Initiatives to Raise Awareness about the Reinforcement of Human Resource Base

- Initiatives related to Childcare and Nursing Care (¥30 million)

Lectures by experts with specialized knowledge, creating posters and brochures

- Initiatives related to Mental Health (¥0.9 million)

Lectures by experts with specialized knowledge, on-the-job guidance on counseling by responsible personnel, creating posters on the topic

- Initiatives related to ethical behaviors in the workplace and substance abuse (¥0.9 million)

Lectures by experts with specialized knowledge, creating brochures and posters

4 Strengthening Educational and Research Infrastructure

A. National Institute for Defense Studies

- Enhancement of research infrastructure on (cyber) security (¥200 million)

Prepare equipment and materials necessary for the enhancement of research infrastructure, conduct study sessions with experts on cyber domain, etc.

B. National Defense Academy

- Improving living environment of the cadets (¥500 million)

Provision of kitchen supplies, etc.

- Maintaining and increasing the standard of research and education (¥1.1 billion)

V Common Infrastructure

C. National Defense Medical College

- Improving infrastructure of the National Defense Medical College (¥1.9 billion)
 - Preparation of equipment necessary for clinical training of SDF doctors and nurses to keep up with more advanced and complex medical practices
 - Establish “Center for Trauma, Burn and Tactical Medicine” (provisional name) to educate doctors and nurses capable of tactical combat trauma care
- Promotion of research on military medicine (¥400 million)
 - Promote research in the field of military medicine which contribute to the SDF unit operations and training and research by the National Defense Medical College

D. JGSDF High Technical School

- Reorganization of the JGSDF High Technical School into a cross-service and co-educational school (¥1.0 billion)
 - Renovation of facilities toward reorganization into a cross-service and co-educational school

E. Expansion of Cyber Education at the SDF Schools, etc.

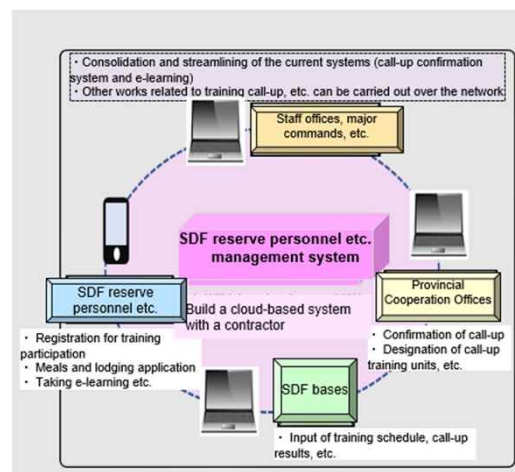
- JGSDF System, Signal and Cyber School (¥2.3 billion)
 - Acquisition of equipment necessary for cyber education infrastructure
- JGSDF High Technical School (¥200 million)
 - Acquisition of equipment necessary for specialized courses on system and cyber, etc.
- National Defense Academy [repost]
 - Reorganize the Information Engineering Department into “Cyber and Information Engineering Department (provisional name)”



JGSDF High Technical School

5 Measures on Reserve SDF Personnel for Sustainable Unit Operations

- Provision of clothing and individual equipment (¥600 million)
 - Promote the renewal of clothing (uniforms) and aging equipment for the SDF reserve personal
- Development of management system for the reserve SDF personnel (¥400 million)
 - Develop a system to effectively manage and coordinate administrative works related to the reserve SDF personnel on computer networks
- Opinion surveys on the system of reserve SDF personnel, etc. (¥30 million)
 - Conduct opinion surveys targeted at retiring SDF personnel and active reservists to gain information useful for reviewing the system of reserve SDF personnel



Conceptual image of management system for the reserve SDF personnel

6 Leveraging Technologies and Human Resources in Private Sectors

- Utilizing external resources for the introduction of AI technologies (¥50 million)
 - Refer to external AI experts with high-level skills for advice on policy planning for AI adaptation and practical guidance on the development of AI application systems.
- Training of AI workforce through AI educational courses (¥30 million)
 - Provide practical courses including programming especially for personnel engaging in AI-related work

V Common Infrastructure

(2) Enhancement of Medical Functions

In order to establish a seamless flow of medical and evacuation posture from the frontline to hospitals, the MOD enhances its first-aid capabilities as well as functions at SDF hospitals to which those wounded in contingency response, etc. are to be transported

○ Improvement of first-aid capabilities on the frontline

Improve in-field first-aid capabilities such as emergency care and surgical treatment to increase the survivability of personnel wounded on the frontline

- Procurement of training materials for first-aid skills
- Procurement of field surgical system (¥300 million)
- Securing and stockpiling blood products for transfusion (¥40 million)



Field surgical system



Skill training using the system

○ Enhancement of medical evacuation capabilities for the wounded

Acquire remote medical assistant equipment and aeromedical evacuation unit for continued en-route medical care from the frontline to hospital

- Acquisition of equipment for remote medical assistance (¥300 million)
- Acquisition of aeromedical evacuation unit (¥400 million)



Air medical evacuation training

○ Enhancement of medical functions at SDF hospitals

In order to enhance the functions of SDF Naha Hospital which is essential for responses in the Southwestern region, the MOD upgrades its infrastructure by reconstructing old facilities, increasing the number of medical departments and installing a part of hospital building to the underground.

The MOD also enhances the functions of SDF Yokosuka Hospital and SDF Fukuoka Hospital, supposed to be major evacuation accommodations for wounded personnel, in conjunction with the reconstruction of their old buildings.

- Assessment and design for reconstruction of the SDF Naha Hospital (¥1.1 billion)
- Reconstruction work of the SDF Fukuoka Hospital (¥9.6 billion)
- Reconstruction work of the SDF Yokosuka Hospital (¥6.8 billion)



SDF Yokosuka Hospital after Reconstruction work (conceptual image)



SDF Fukuoka Hospital after Reconstruction work (conceptual image)

V Common Infrastructure

5 Measures for Strengthening the Japan-U.S. Alliance and Fostering Harmony with Local Communities

- The MOD will steadily implement the initiatives for realignment of the U.S. Forces to strengthen the deterrence and response capabilities of the Japan-U.S. Alliance while mitigating impacts on local communities
- While SDF and the U.S. Forces expand and diversify their activities, as well as fundamentally reinforce the defense capabilities, the MOD will steadily implement measures to harmonize defense facilities with surrounding areas while also promoting measures to ensure the smooth and effective stationing of the U.S. Forces in Japan to gain further understanding and cooperation from local communities

(1) U.S. Forces Realignment-Related Expenses [Measures for Mitigating the Impact on Local Communities] (Item-only Request)

Relocation of the U.S. Marine Corps Stationed in Okinawa to Guam

- Project for Relocation of the U.S. Marine Corps Stationed in Okinawa to Guam

Realignment-Related Measures in Japan

- Projects for realignment in Okinawa
 - Relocation of MCAS Futenma
 - Construction of the Futenma Replacement Facility, etc.
 - Futenma refurbishment
 - Return of land areas south of Kadena Air Base
- Project for the relocation of the carrier-based aircraft (Facility construction in Mageshima Island, etc.)
- Project for use in contingency
- Project for training relocation
- Project for smooth implementation of realignment-related measures



Construction of the Futenma Replacement Facility



Facility construction on Mageshima island

(2) SACO-Related Expenses

- Japan will continue to steadily implement the measures (mitigating the impact on local communities in Okinawa) in the Special Action Committee on Okinawa (SACO) Final Report except for changes made under the Japan-U.S. Security Consultative Committee (“2+2”) Joint Statement.

V Common Infrastructure

(3) Promotion of Base-Related Measures

1 Expenses Related to Measures for Communities Around Bases (¥140.6 billion)

Expenses for measures to promote harmony among defense facilities and surrounding areas

○ Implementation of Soundproofing Projects for Residences Around Air Bases, etc. (¥60.3 billion)

Restoration of functions around maneuver areas

Review of subsidy limits in light of price increase and other factors

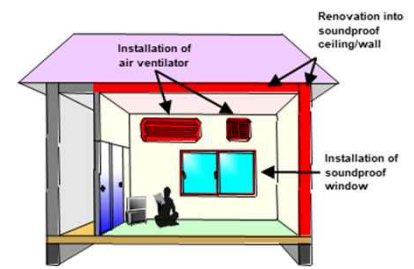
○ Improving the Living Environment of Areas Around Defense Facilities (¥80.2 billion)

- Subsidies for construction of facilities to improve the living environment

Development of public facilities which can also be utilized as evacuation sites

※Coordinate with other Ministries and Agencies to enable the defense subsidies for evacuation sites to also cover the facility development based on specification studies of evacuation sites conducted by the Cabinet Office

- Increase of the Facilities Environment Improvement Adjustment Grants (for development of public facilities and implementation of so-called “soft projects” such as subsidies for healthcare expenses)



Example of Residential Soundproofing



Public Gymnasium

2 Host Nation Support (Cost Sharing for the Stationing of U.S. Forces in Japan (¥218.8 billion))

Expenses to support smooth and effective operation of U.S. Forces in Japan and to enhance the deterrence and response capabilities of the Japan-U.S. Alliance

○ Cost sharing under the New Special Measures Agreement (SMA) (¥148.6 billion)

Labor cost (¥125.7 billion)

Utilities cost (¥15.1 billion)

Training equipment and materials procurement cost (¥6.5 billion)

Training relocation cost (¥1.3 billion)

○ Facilities Improvement Program (FIP) (aircraft shelters, maintenance hangars, etc.) (¥44.9 billion)

○ Payment of Employer Contributions for USFJ Local Employees' Social Insurance Premiums (Healthcare Insurance, Pension Insurance, etc.) (¥25.3 billion)



Aircraft shelter

3 Rents for Facilities, Compensation, etc. (¥155.8 billion)

Rents for land areas of defense facilities and compensation for decrease in fishery income due to training on water areas, etc.

V Common Infrastructure

6 Strengthening Security Cooperation

- Japan will actively leverage the SDF's capabilities to further **defense cooperation and exchanges including bilateral/multilateral training and exercises and various types of international meetings**, for the purpose of strategically promoting multi-faceted and multi-layered security cooperation, based on the vision of "Free and Open Indo-Pacific"

(1) Japan - U.S. Bilateral Exercises

- Japan-U.S. Joint Bilateral Exercise (field training exercise)
Training related to the Japan-U.S. combined response and joint operations of the SDF for the defense of Japan
- Japan-U.S. Joint Bilateral Exercise on Integrated Air and Missile Defense
Training related to the Japan-U.S. combined response in Ballistic Missile Defense and air defense
- Multilateral Command Post Exercise by Japan, U.S., Australia and the Philippines (YS)
Exercise for trilateral staff-level operations following the respective command channel in JGSDF and other armies
- U.S. Navy hosted Multilateral Exercise (Sea Dragon)
Strengthen cooperation with foreign naval forces and improve tactical skills
- U.S. Navy hosted Multilateral Exercise (RIMPAC)
Promote interactions with the U.S. Navy and other foreign naval forces to build mutual trust, as well as improve tactical skills through objective assessment on the achievement level by making advantage of freer training sea areas and firing ranges, and better training assessment system
- Japan-U.S.-Australia trilateral exercise (Cope North)
Trilateral exercise aiming to improve tactical skills, interoperability among the three countries, and multilateral cooperation in humanitarian aid and disaster relief



Briefing with U.S. instructors



Multilateral Command Post Exercises (YS)



RIMPAC



Cope North

(2) Enhancement of Capabilities for Overseas Operations

- U.S. sponsored Large-Scale Global Exercise
The SDF vessels and aircraft participate in the Large-Scale Global Exercise (LSGE) hosted by the U.S. to improve tactical skills and strengthen cooperation with the participant countries
- Cobra Gold
Maintain and improve the SDF's joint operational capabilities for such missions as rescue of Japanese nationals overseas and promote mutual understanding and cooperation through the participation in the multilateral exercise (Cobra Gold)



Cross deck by Japan and the U.S.



Cobra Gold

V Common Infrastructure

○ Pacific Partnership

Provide medical services and engage in cultural exchange in the Indo-Pacific region to promote cooperation and mutual understanding with foreign governments and forces, and to strengthen joint operational capabilities in international emergency disaster relief activities.



Joint medical treatment by Japan and the U.S.



Joint resuscitation training by Japan and the U.S.

(3) Promotion of Defense Cooperation and Exchanges

○ Japan-U.S.-India-Australia Multilateral Exercise (Exercise Malabar)

Enhance cooperation with naval forces in Indo-Pacific through various tactical training

○ Field Training Exercises with other foreign Armies, etc.

Conduct field training exercise with Australian, Indian, British, French, Philippines and Mongolian Army to improve tactical personnel- and unit-level skills and strengthen cooperation with each country, which contribute to the peace and stability of the Indo-Pacific region

○ Enhancement and Expansion of Capacity Building

- Enhance capacity building in such areas as humanitarian assistance/disaster relief (HA/DR), PKO, maritime security, military medicine and cybersecurity.
- Expand capacity building to Pacific Islands.



Capacity building in PKO (civil engineering) (Mongolia)



Capacity building in maritime security (underwater unexploded ordnance clearance) (Viet Nam)



Capacity building in HA/DR (Engineering Equipment Maintenance) (Papua New Guinea)

○ Initiatives under the ASEAN Defence Ministers' Meeting Plus (ADMM-Plus)

Actively promote and strengthen defense and security cooperation in the Indo-Pacific under the ADMM-Plus, which is the official ministerial-level meeting among defense authorities in the region



ADMM-Plus

○ Initiatives under the Vientiane Vision 2.0

Promote practical defense cooperation with emphasis on ensuring the rule of law and strengthening maritime security by holding such activities as seminars with ASEAN member countries based on the Vientiane Vision 2.0, the guideline for Japan-ASEAN defense cooperation

V Common Infrastructure

(4) International Cooperation with UN and Partners in Areas of Strength

- Dispatch of Instructors to PKO Centers in Africa and Other regions
Dispatch SDF personnel as instructors to provide lectures for UN peacekeeper candidates upon requests from PKO Centers, and thus contribute to the peace and stability through enhancing PKO capabilities in the region



Dispatch of Instructors to PKO Centers in Africa

- UN Triangular Partnership Programme
Contribute to the UN Peacekeeping operations by dispatching SDF personnel to provide facility engineering and medical training for peacekeepers in African and Asian countries



UN Triangular Partnership Programme

(5) Ensuring Maritime Security

- Counter-Piracy Operations off the Coast of Somalia and in the Gulf of Aden
Continue counter-piracy operations by destroyer and P-3C off the coast of Somalia and in the Gulf of Aden by participating in Combined Task Force 151, a multinational counter-piracy task unit
- Indo-Pacific Deployment (IPD)
Contribute to the peace and stability of the Indo-Pacific region and realize the Free and Open Indo-Pacific by promoting mutual understanding and strengthening relationship and cooperation through multilateral exercises with foreign naval forces which deploy vessels in the region



Destroyer escorting a vessel

(6) Efforts to Ensure the Safety of Japan-Related Vessels

- Information Gathering Activities in the Middle East
Destroyer and P-3C involved in counter-piracy operations concurrently gather information in 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

V Common Infrastructure

7 Initiatives to Combat Climate Change

- It is important to maintain and enhance both climate change measures and defense capabilities at the same time to ensure that the MOD and the SDF can fulfill the duties and roles assigned to them under any environment forecasted due to climate change.
- For achievement of the government's target to reduce greenhouse gas emissions by 50% by FY2030, it is necessary to steadily promote the measures described in the "National Government Action Plan*" to reduce the total emission of greenhouse gas from the MOD (excluding defense equipment).

* National Government Action Plan (cabinet approval on December 22nd, 2021)

- Reinforcement of Bases and other Facilities, and Infrastructure (¥5.3 billion)
Enhance resiliency of infrastructure of facilities such as bases etc. against disasters etc. caused by climate change
 - Disaster prevention measures of bases (measures against inundation)
 - [Power sources for emergency](#)
- Improvement on Defense Capabilities and Enhancement on Resiliency of Defense Equipment (¥400 million)
Respond to new energy source configuration on the future decarbonized society
 - Research on hybrid systems
- Reinforcement of Disaster Response Capabilities (¥10.5 billion)
Enhance disaster response capabilities for expected increase in intensity and frequency of natural disasters
 - Acquisition and upgrade of material carrier vehicle
 - Acquisition of multi-purpose drones and related equipment for information gathering in disaster relief
- Reinforcement of Strategic Security Cooperation (¥1.2 billion)
Promote exchanges and cooperation on the theme of climate change and conduct joint trainings, etc. for HA/DR, etc. with other countries
 - Implementation of International Peace Cooperation Exercises
- Improvement of Living and Working Environments of SDF personnel and Reinforcement of Medical Functions (¥27.4 billion)
Take measures for increasing health risks of SDF personnel due to heatwaves and extreme heats
 - Installation of Air conditioning system of barracks, etc.
 - [Study on measures against heat island effect](#)
- Improvement of Energy Efficiency and Reduction of Greenhouse Gas Emissions at Base and Other Facilities (¥14.6 billion)
Strengthen resilience and reduce greenhouse gas emissions through energy-saving measures at defense facilities
 - Installing LED lighting system
 - Upgrade to hybrid vehicles
- Training, Education and Human Resource Development (¥16.5 billion)
Conduct unit operations and trainings to adapt to future security environment affected by climate change
 - Acquisition of simulators for aircraft, etc.



Upgrade to LED lighting system



Upgrade to hybrid vehicles

V Common Infrastructure

8 Streamlining Initiatives

➤ The MOD will promote optimization of the equipment acquisition process through the following measures, in accordance with the NDS and the DBP.

○ Operational Suspension and Disposal of Equipment

Suspend and divest defense equipment whose importance has decreased due to obsolescence, etc.

○ Systematic, Stable and Efficient Acquisition

Achieve cost reduction through bulk purchase, including long-term contracts, which are expected to improve the predictability of companies and promoting efficient production

In addition, expand package/blanket contracts methods, such as Performance Based Logistics (PBL) which enables the payment based on the maintenance performance

(Main projects) • **Bulk-purchase through long-term contracts**

Acquisition of utility helicopters (CH-47JA/J) by JGSDF and JASDF [repost]

Recertification of JASDF PAC-2GEM [repost]

Comprehensive contracts for spare parts of JASDF F110 engines

• **Bulk/Joint-purchase in other methods**

Recertification of JASDF PAC-3 [repost]

• **Implementation of PBL (Performance Based Logistics)**

[Sustainment and Maintenance of transport vessels \[repost\]](#)

○ Narrowing down SDF- unique Specifications

Shorten acquisition timeline and reduce life-cycle cost by narrowing down SDF-unique specifications through the use of modular / communal parts and commercial-off-the-shelf (COTS) items

○ Project Review

Review projects with low cost-effectiveness while also promote thorough cost management of each program, and expand the use of external human resources such as outsourcing to private-sector contractors

○ Optimization of Organizational Capacity

Review the assignment of personnel in all SDF units by promoting the abolition of the existing units and outsourcing, and preferentially allocate personnel to new domains, such as space, cyber, and electromagnetic domains

9 Organizational Formation of the SDF

○ **Establishment of “Permanent Joint Headquarters (provisional name)” (see p.11)**

○ **Establishment of “Maritime Transport Units (provisional name)” [repost]**

○ **Reorganization of JMSDF Districts**

• Reorganize Ominato District to integrate with Yokosuka District in order to enable seamless and flexible operation from the north to the Pacific Ocean in border defense, patrol, disaster relief, etc. activities

• Newly form a general logistics Unit in Ominato

• Maintain the size of personnel in Ominato

V Common Infrastructure

10 Number of SDF Personnel

○ Number of SDF personnel

Number of Regular Personnel	End of FY2023	End of FY2024	Change
JGSDF	150,245	149,767	△478
JMSDF	45,414	45,452	+38
JASDF	46,976	47,007	+31
Joint Units	1,732	2,193	+461
Joint Staff Office	394	343	△51
Defense Intelligence HQ	1,936	1,936	0
Internal Bureau	50	50	0
ATLA	407	406	△1
Total	247,154	247,154	0

Note: Figures for the end of each fiscal year are budget figures.

Number of SDF Reserve Personnel	JGSDF	JMSDF	JASDF	Total
Reserve Personnel	46,000	1,100	800	47,900
Ready Reserve Personnel	7,981	—	—	7,981
Reserve Candidates	4,600	21	—	4,621

○ Actual Number (Effective Strength) of SDF Personnel

Actual Number	JGSDF	JMSDF	JASDF	Total
Request for Increase	+684	+247	+196	+1,127

Note : 410 personnel will be transferred to the Joint Staff Office, etc.* of the above

* Joint Staff Office, etc. refers to the JSO, joint units, DIH, IB, and ATLA.

<Reference: Changes in the actual number of SDF personnel in the last 5 years>

	FY2019	FY2020	FY2021	FY2022	FY2023
Approved	+664	+641	+710	+1,014	+1,769

Average Number	JGSDF	JMSDF	JASDF
Annual Average	142,041	43,803	44,777

V Common Infrastructure

11 Increasing the Number of Officials, etc.

Request the increase in the number of civilian officials and other personnel necessary for steadily implementing the Defense Buildup Program (December 16, 2022) (increasing the number of officials by 537 + item requests without specific number, which are common to all ministries regarding economic security, etc.)

	Category	Number of Increase (people)	Example
II. Major Programs concerning Capabilities of the SDF, etc.	1. Stand-off Defense Capabilities	18	Strengthening posture for the Introduction of Tomahawk missile
	3. Unmanned Defense Capabilities	9	Increasing operational readiness for the Introduction of long-endurance UAV
	4. Cross-domain Operational Capabilities	53	Strengthening Posture regarding Space Domain Awareness (SDA)
	5. Command and Control/Intelligence-related Functions	81	Strengthening functions against Information Warfare
	6. Mobile Deployment Capabilities / Civil Protection	30	Enhancing roles of Staff Offices including Divisional Headquarters
	7. Sustainability and Resiliency	93	Enhancing system to steadily improve the resiliency of SDF Facilities
III. Organizational Structure of the SDF		2	Strengthening collaborative posture with partner countries for the development of Next Generation Fighter Aircraft
IV. Reinforcement of the Japan - U.S. Alliance	1. Strengthening Japan-U.S. Defense Cooperation	2	Strengthening coordination functions in Japan - U.S. Alliance
	2. Steady Implementation of Measures to Support Stationing of U.S. Forces in Japan (USFJ)	5	Enhancing system for the optimization of the force posture of USFJ
V. Collaboration with Like-Minded Countries and others		3	Enhancing system to promote defense cooperation and exchanges with countries in the Pacific Islands and the Central and South America
VI. Elements Supporting Defense Capability		28	Enhancing system to reinforce defense capabilities in the Southwestern region, etc.
IX. Defense Production and Technology Bases as Virtually Integral Part of Defense Capability		185	Building structural system to execute projects related to Act on Enhancing Defense Production and Technology Bases Enhancing foundation for research and development of defense equipment Strengthening acquisition functions
X. Reinforcement of Foundation to Maximize the Abilities of SDF personnel as a Core of Defense Capabilities	1. Enhancement of Human Resource Base	4	Enhancing functions to drastically review and revise the system of SDF Reserve personnel, etc.
	2. Transformation of Medical Functions	24	Enhancing infrastructure to improve medical treatment capabilities for those wounded in combat
Total		537	

< Review of the designated Number of Officials, etc. >

(unit: people)

	FY2020	FY2021	FY2022	FY2023	FY2024
	14 th Rationalization Plan				
Increase	299	290	330	355	537
Rationalization	△266	△266	△267	△267	△267
Decrease due to temporary post's expiration, etc.	△12	△21	△19	△13	△8
Net Increase and Decrease	21	3	44	75	-
Number at the end of FY	20,924	20,927	20,971	21,041	21,303

Note 1: Number at the end of FY does not include the Minister, State Minister, two Parliamentary Vice-Ministers, or Senior Advisor to the Minister.

Note 2: Personnel transfer to the Ministry of Foreign Affairs (Embassy in the UK) for the development of Next Generation Fighter Aircraft is not included in Temporary post's expiration, but in Number at the end of FY.

Note 3: Numbers for FY2024 (Increase, Temporary post's expiration, and Number at the year-end) are correct as of the budget request for the FY.

V Common Infrastructure

12 Request for Tax System Reform

Establishment of Special Measures for Tax Exemption 【Consumption Tax and Local Consumption Tax】

- Tax exemption measures for the imports related to the joint development of the next generation fighter aircraft

Request for establishing special measures for exemption of consumption tax etc. associated with imports of articles by an international organization, which is to be established by Japan, the UK and Italy, for an efficient promotion of the next-generation fighter aircraft development

Perpetuation of Tax Exemption Measures 【Diesel Oil Delivery Tax】

- Perpetuation of tax exemption measures for diesel oil as power source for the SDF's vessels and communication equipment, etc.

Request the perpetuation of the exemption measures for diesel oil delivery tax as power source for the SDF's vessels and communication equipment, which is set to be effective until the end of JFY2023



Operation of vessels
(conceptual image)



Operation of communication equipment, etc. (conceptual image)



Hydraulic excavator

- Perpetuation of tax exemption measures for the provision of tax-exempt diesel oil based on 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, etc.

- Perpetuation of tax exemption measures for the case of provision of tax-exempt diesel oil based on the Acquisition and Cross-Servicing Agreement (ACSA)

As the special measures for exemption of diesel oil delivery tax on the provision of tax-exempt diesel oil to the third party (i.e. the U.S. forces) for the logistic support based on the Important Influence Situation Act, etc. and the provision of tax-exempt diesel oil based on ACSA in joint training with Australian Defence Force, etc. are applied to the MOD until the end of JFY 2023, and the MOD requests the perpetuation of the special measures.



Provision of diesel oil to a foreign military vessel at sea (conceptual image)

*Tax Measures to Secure the Financial Resources for Fundamental Reinforcement of Defense Capabilities

In order to secure the stable financial resources in both expenditures and revenues necessary for the fundamental reinforcement of Japan's defense capabilities, the MOD requests tax measures based on the DBP, "Outline of Tax System Reform for JFY2023" and "Basic Policy on Economic and Fiscal Management and Reform 2023".

Reinforcement of Comprehensive Defense Architecture

Under the frameworks of relevant ministries and agencies, the MOD will promote efforts in four areas that complement and are inseparable from the fundamental reinforcement of defense capabilities, namely research and development, public infrastructure development, cybersecurity, and international collaboration to enhance deterrence capabilities of Japan and like-minded countries.

【Research and Development】

- **We will promote research and development of science and technology that contributes to the enhancement of comprehensive defense architecture** by matching research and development needs based on the views of the Ministry of Defense with the appropriate technological seeds possessed by relevant ministries and agencies under the cooperative framework.
- We designate **“Matching Projects”** based on the arrangement of “Important Technological Challenges” which contribute to the enhancement of comprehensive defense architecture and thus should be promoted in civilian research and development projects of relevant ministries and agencies

【Development of Public Infrastructure】

- In order to conduct effective responses in light of the security environment, while primarily for the purpose of civilian use, **we will develop and expedite projects under the cross-governmental framework to enable the SDF and JCG vessels and aircraft to utilize airports and seaports as necessary**, especially in Southwestern islands and other regions.
- In addition, **we will establish “Framework for Smooth Utilization” with administrators of public infrastructures to also enable the SDF and JCG to utilize civilian airports and seaports in peacetime.**

【Cybersecurity】

- By implementing such measures as introduction of active cyber defense for eliminating in advance the possibility of serious cyberattacks that may cause national security concerns, **the Japanese Government’s policy is to strengthen the response capabilities in the field of cybersecurity to the extent equal to or surpassing the level of leading Western countries.**

【International Collaboration to Enhance Deterrence Capabilities of Japan and Like-minded Countries】

- On the purpose of **contributing to enhancing deterrence and other security capabilities of like-minded countries**, the Ministry of Foreign Affairs has newly established **“Official Security Assistance (OSA)”**, a cooperative grant framework separate from the existing ODA.

(Reference)

Basic Policy on Economic and Fiscal Management and Reform 2023 (June 16, 2023) (excerpt)

Chapter 3 Responding to Changing Environment Surrounding Japan

1. Responding to changes in the international environment

(1) Strengthening diplomacy and security

In response to the most severe and complex security environment, since the end of World War II Japan will fundamentally reinforce defense capabilities over the next five years through fiscal 2027, based on the National Security Strategy and other documents*1. In doing so, the government will emphasize the following seven pillars: Stand-off Defense Capabilities, Integrated Air and Missile Defense capabilities, Unmanned Defense Capabilities, Cross-domain Operation Capabilities, Command and Control and Intelligence-related Functions, Mobile Deployment Capabilities and Civil Protection, and Sustainability and Resiliency. In order to maximize effective use of the current defense equipment, the government will accelerate investments in improving mobility, securing ammunition and fuel, and fortifying key defense facilities, while also reinforcing future core capabilities.

Japan will reinforce joint deterrence and response capabilities of the Japan-U.S. Alliance, while also reinforcing collaboration with like-minded countries and others.

The government will maintain and reinforce defense production and technology bases in Japan to ensure stable procurement of equipment. Japan will build a powerful and sustainable defense industry, address various risks, and promote the transfer of defense equipment and technology by steadily enforcing the Act on Enhancing Defense Production and Technology Bases*2. The government will also work on research and development to realize innovative equipment ahead of other countries, and make efforts to proactively utilize advanced commercial/basic technologies.

The government will reinforce human resource base by securing excellent human resources, improving living and working environment, and improving treatment, while also enhancing medical functions. The government will also promote the realignment of the U.S. Forces in Japan and the base-related measures.

*1 *National Security Strategy, National Defense Strategy and Defense Buildup Program* (approved by the National Security Council and the Cabinet on December 16th, 2022)

*2 *Act on Enhancing Bases for Development and Production of Equipment Acquired by the Ministry of Defense* (provisional translation) (Act No.54, 2023)

Basic Policy for FY2024 Budget Request (July 25th, 2023) (excerpt) (provisional translation)

1. FY2024 Budget Request

(2) Expenses in the Defense Buildup Program

The Ministry requests the specific amount of expenses stipulated in Article 1, Clause 3 of *Special Measures Act on Ensuring Necessary Financial Source for the Fundamental Reinforcement of Japan's Defense Capabilities* (Act No.69, 2023) based on the Defense Buildup Program (approved by the National Security Council and the Cabinet on December 16th, 2022).



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The Ministry of Defense

5-1 Ichigaya-Honmuracho, Shinjuku-ku, Tokyo 162-8801

TEL: +81-3-3268-3111 (main line)