

防衛省

Ministry of Defense



Defense Programs and Budget of Japan

Overview of FY2017 Budget Request

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**Defense Programs and
Budget of Japan**

**Overview of FY2017 Budget
Request**

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Concept of **FY2017** Budget Request

1. Japan will steadily improve its defense capabilities during FY2017, as the fourth fiscal year of this effort, in order to develop the Dynamic Joint Defense Force according to the “National Defense Program Guidelines for FY2014 and beyond” (approved by the Cabinet on December 17, 2013) and the “Medium Term Defense Program (FY2014-FY2018)” (approved by the Cabinet on December 17, 2013).
2. Japan will build up its defense capabilities while focusing on the further enhancement of joint functions in order to seamlessly and dynamically fulfill its defense responsibilities, which include providing effective deterrence and response to a variety of security situations, supporting stability in the Asia-Pacific region, and also improving the global security environment. Japan will place particular emphasis on the following measures: intelligence, surveillance, and reconnaissance (ISR) capabilities; intelligence capabilities; transport capabilities; command, control, communication, intelligence (C3I) capabilities; response to attacks on remote islands; response to ballistic missile attacks; response to outer space and cyberspace threats; response to large-scale disasters, etc.; and international peace cooperation efforts, etc. At the same time, Japan will give consideration to ensuring technological superiority and maintaining defense production and the technological bases.
3. In light of the increasingly severe fiscal situations, Japan will further promote efforts to achieve greater efficiency and streamlining that is in harmony with other national policies through initiatives such as long-term contracts.

Notes 1: Numbers in the text represent [expenses, excluding non-recurring costs](#), which are required for the production of equipment, unless otherwise specified.

2: Numbers in the text are on a [contract basis](#), unless otherwise specified.

3: [Blue text](#) indicates [new programs](#).

I Effective deterrence and response to various situations

In order to provide effective deterrence and respond to a variety of security situations, Japan will build up necessary defense capabilities to ensure security of the seas and airspace surrounding Japan, respond to attacks on remote islands, respond to ballistic missile attacks, respond to outer space and cyberspace threats, respond to large-scale disasters, and strengthen intelligence capabilities.

1 Ensuring security of seas and airspace surrounding Japan

Strengthen intelligence, warning and surveillance capabilities in the seas and airspace surrounding Japan, in order to carry out continuous surveillance across wide areas and detect various warning signs at an early time

- Capability improvement for fixed-wing patrol aircraft (P-3C) (¥500 million)
Implement upgrade necessary to improve capabilities of radars in order to improve the detection/discernment capabilities of fixed-wing patrol aircraft (P-3C)



Fixed-wing patrol aircraft (P-3C)

- Life extension of fixed-wing patrol aircraft (P-3C) (3 aircraft: ¥1.8 billion)
Implement life extension measures for P-3C to maintain the number of fixed-wing patrol aircraft



Patrol helicopter (SH-60K)

- Life extension of patrol helicopters (4 helicopters: ¥4.7 billion)
Implement life extension measures for two SH-60Ks and two SH-60Js to maintain the number of patrol helicopters

- Life extension of imagery intelligence gathering aircraft (OP-3C) (1 aircraft: ¥700 million)
Implement life extension measures for one OP-3C aircraft in order to maintain the number of imagery intelligence gathering aircraft



Imagery intelligence gathering aircraft (OP-3C)

- Acquisition of ship-based multipurpose helicopter [under source selection]
Newly introduce a ship-based multipurpose helicopter to engage in transportation, rescue, provision of relief to and evacuation of injured personnel, etc., in order to support destroyer units to continuously perform operations according to situations

- Capability Improvement of Airborne Warning And Control System (AWACS) (E-767) (2 aircraft: ¥22 billion)
Implement conversion of central computing devices and installation and upgrade of electronic warfare support measures in order to improve the warning and surveillance capabilities of the existing E-767



Airborne Warning And Control System (AWACS) (E-767)

- Acquisition of Unmanned Aerial Vehicles (Global Hawk) (¥17.3 billion)
 - Allocate expenses for the assembly of one UAV (Global Hawk) in order to enhance persistent wide-area surveillance capability
 - Strengthen preparation and readiness for the introduction of UAVs



Unmanned Aerial Vehicle (Global Hawk) (picture of the same aircraft type)

* Separately allocate ¥2.2 billion for other related expenses (support equipment, etc.)
 The FY2015 and FY2016 budgets were used to acquire aircraft components (for 3 vehicles) and ground element for remote control operation.

- Life extension of destroyers (life extension work for 5 destroyers and parts procurement for 6 destroyers: ¥5.6 billion)
 Implement life extension measures for Asagiri-class (5 destroyers), Abukuma-class (4 destroyers), Hatakaze-class (1 destroyer), and Kongo-class (1 destroyer) to maintain the number of destroyers

- Construction of a submarine (1 submarine: ¥76 billion)
 Build a submarine of a new class (3,000 tons) with higher detecting and other capabilities in order to conduct intelligence-gathering and surveillance activities in an effective manner in the seas surrounding Japan by increasing the number of submarines from 16 to 22



FY2017 submarine (3,000t class) (image)

- Life extension of submarines (life extension work for 3 submarines and parts procurement for 6 submarines: ¥3.8 billion)
 Implement life extension measures for Oyashio-class submarines in order to increase the number of submarines from 16 to 22



Oyashio-class submarine (2,700t class)

- Building of a an ocean minesweeper (1 vessel: ¥17.8 billion)
 Build a ocean minesweeper (the third of the Awaji-class) (690 tons) which is equipped with higher capability to sweep deep-water mines and which has an FRP hull with higher strength in place of a conventional wooden hull



Awaji-class ocean minesweeper (690t class) (image)

- Building of an ocean surveillance ship (1 ship: ¥23.4 billion)
 Build an ocean surveillance ship (the third of the Hibiki-class (2,900 tons)) in order to enhance the capability to gather acoustic information in the seas



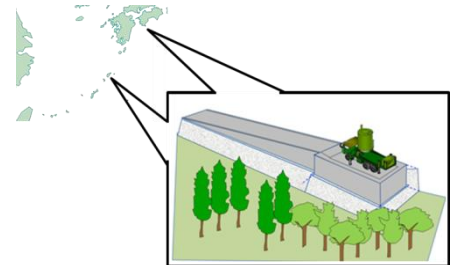
Hibiki-class ocean surveillance (2,900t class)

2 Response to attacks on remote islands

In order to respond to attacks on remote islands, the MOD will develop continuous surveillance capabilities, ensure and maintain air superiority and maritime supremacy, enhance rapid deployment and response capabilities such as transportation and amphibious operation capabilities, and strengthen the infrastructure for C3I capabilities.

(1) Develop continuous surveillance capabilities

- Establishment of foundation for deploying mobile warning and control radar in the southwestern region (¥200 million)
Maintain seamless warning and surveillance posture by establishing foundation for deploying mobile warning and control radar in Amami-Oshima (Kagoshima Prefecture) and Tosa-Shimizu (Kochi Prefecture)
- Conversion of fixed warning and control radar (FPS-7) and addition of functions for BMD response (¥8.6 billion)
 - Acquire fixed warning and control radar (FPS-7) to install on Unishima Island (Nagasaki Prefecture)
 - Allocate cost of building facilities necessary to install FPS-7 in Wakkanai (Hokkaido Prefecture)
- Acquisition of Unmanned Aerial Vehicles (Global Hawk) (repost)
- Improvement of the capability of Airborne Warning And Control System (AWACS) (E-767) (repost)



Establishment of deployment foundation for mobile warning and control units (image)



Fixed warning and control radar (FPS-7)

(2) Ensure and maintain air superiority

- Acquisition of fighter aircraft (F-35A) (6 fighters: ¥94.6 billion)
*¥42.3 billion is allocated separately for other related expenses (ground support equipment, etc.)
- Upgrade of fighter aircraft (¥5.3 billion)
Upgrade capabilities of existing fighters to adapt to the modernization of the aerial combat capabilities of neighboring countries and to appropriately carry out air defense missions.
 - Improvement of air-to-air combat capability of fighter aircraft (F-2) (16 fighters)
 - Upgrade of fighter aircraft (F-2) by equipping JDCS (F)* (12 fighters)
*JDCS (F): Japan Self Defense Force Digital Communication System (Fighter)



*F-35A fighter aircraft
(picture of the same aircraft type)*



F-2 fighter aircraft

- Shifting the posture of fighter squadrons, etc.
 - Shift the posture of fighter squadrons to develop readiness for ensuring air superiority, including strengthening the defense posture in the southwestern region
 - Establish a new temporary squadron of F-35A (provisional name) at Misawa Air Base



- Acquisition of new aerial refueling and transport aircraft (KC-46A) (1 aircraft: ¥31.8 billion)
 Acquire new aerial refueling and transport aircraft (KC-46A) that will allow fighter squadrons, etc. to continuously execute various operations in the airspace surrounding Japan



New aerial refueling and transport aircraft (KC-46A) (image)

- Additional installment of aerial refueling functions to transport aircraft (C-130H) (1 set: ¥1.6 billion)
 Acquire upgrade components necessary for refueling the rescue helicopters (UH-60J) in the air , in order to ensure adequate scope and time for search and rescue activities when responding to attacks on remote islands, etc.



Transport aircraft with aerial refueling function (KC-130H) / rescue helicopters (UH-60J)

- Acquisition of surface-to-air missiles for base air defense (0.5 set: ¥3 billion)
 Acquire surface-to-air missiles for base air defense with higher capabilities in order to counter airborne threats from higher-quality cruise missiles and defend operational infrastructure such as air bases



Surface-to-air missile for base air defense

- Acquisition of Type-03 middle-range surface-to-air missile (modified) (1 set: ¥17.7 billion)



Type-03 middle-range surface-to-air missile (modified) (prototype)

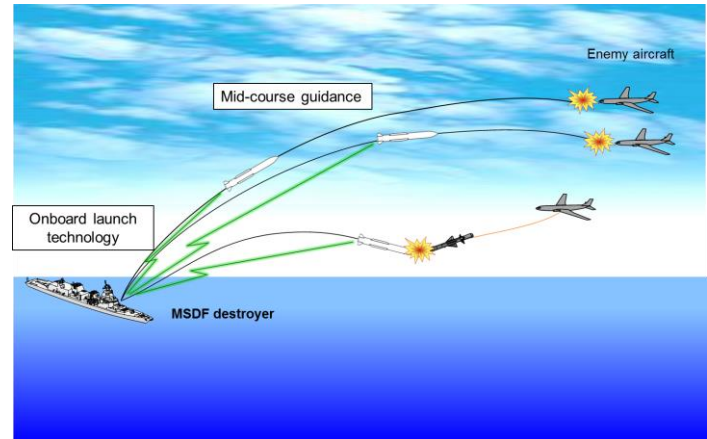
- Acquisition of Type-11 short-range surface-to-air missile (1 set: ¥4.5 billion)



Type-11 short-range surface-to-air missile

(3) Ensure and maintain maritime supremacy

- Development of a new ship-to-air missile (¥9.0billion)
Develop a long-range ship-to-air missile capable of countering enemy aircraft, etc. in order to strengthen the air defense capability of destroyers



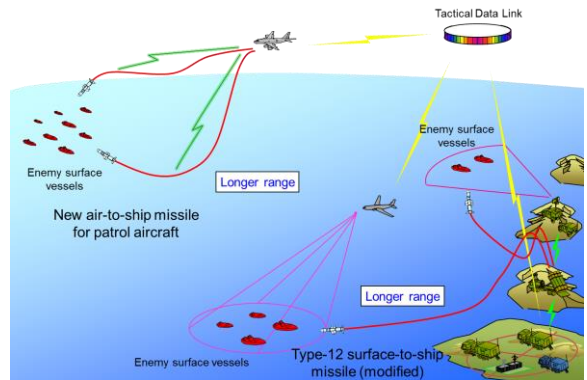
Conceptual Image of operation of a new ship-to-air missile

- Capability improvement for fixed-wing patrol aircraft (P-3C) (repost)
- Life extension of fixed-wing patrol aircraft (P-3C) (repost)
- Life extension of patrol helicopters (repost)
- Life extension of imagery intelligence gathering aircraft (OP-3C) (repost)
- Acquisition of ship-based multipurpose helicopter [under source selection] (repost)
- Life extension of destroyers (life extension work for 5 destroyers and parts procurement for 6 destroyers) (repost)
- Construction of a submarine (repost)
- Life extension of submarines (life extension work for 3 submarines and parts procurement for 6 submarines) (repost)
- Building of an ocean minesweeper (repost)
- Building of an ocean surveillance ship (repost)
- Acquisition of Type-12 surface-to-ship missile (1 set: ¥8.1 billion)



Type-12 surface-to-ship missile

- Development of the Type-12 surface-to-ship missile (modified) and a new air-to-ship missile for patrol aircraft (¥11.6 billion)
Develop the Type-12 surface-to-ship missile (modified) with upgraded functions and performance, including a longer range compared with existing missiles, and a new air-to-ship missile for patrol aircraft in order to enhance the capability to counter enemy surface vessels, etc.



Conceptual Image of operation of the Type-12 surface-to-ship missile (modified) and a new air-to ship missile for patrol aircraft

(4) Enhance rapid deployment and response capabilities

- Acquisition of transport helicopter (CH-47JA) (6 helicopters: ¥45.6 billion)
Provision of transport helicopter (CH-47JA) in order to secure the capability for quick and large-scale transport and deployment and enhance effective response capabilities



Cargo helicopter (CH-47JA)

- Acquisition of tilt-rotor aircraft (V-22) (4 aircraft: ¥39.3 billion)
 - In view of enhancing unit deployment capabilities in amphibious operations, acquire tilt-rotor aircraft (V-22) that complement and strengthen the transport capabilities of transport helicopters (CH-47JA), including cruising speed and range
 - Expenses related to the acquisition of spare parts, etc. (¥39.2 billion)



*Tilt-rotor aircraft (V-22)
(picture of the same aircraft type)*

- Acquisition of transport aircraft (C-2) (3 aircraft: ¥66.7 billion)
In view of the decreasing number of the current transport aircraft (C-1), acquire transport aircraft (C-2) with enhanced cruising range, payload, etc. that contribute to large-scale deployments



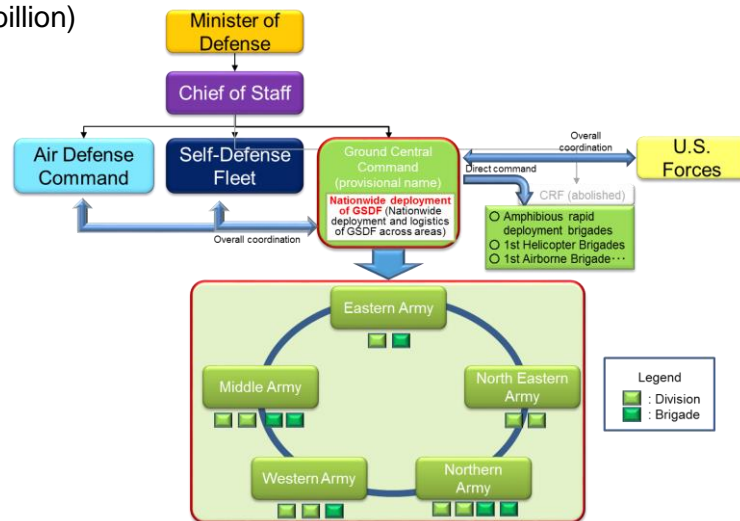
Transport aircraft (C-2)

- Acquisition of Type-16 mobile combat vehicles (33 vehicles: ¥23.7 billion)
Strengthen rapid deployment capabilities of the basic operational units (rapid deployment divisions and rapid deployment brigades) by deploying Type-16 mobile combat vehicles suited for transportation by aircraft and other means



*Type-16 mobile combat vehicle
(prototype vehicle)*

- Development for the establishment of the Ground Central Command (provisional name)
 - Allocate related project expenses for the establishment of a unified HQ contributing to enhancing the GSDF's nationwide operation posture
 - Develop office buildings for the Ground Central Command HQ (underground part) (Asaka) (¥8.0 billion)



Line of command of the Ground Central Command

- Development for the establishment of the Amphibious Rapid Deployment Brigades (provisional name)
 - Acquisition of amphibious vehicles (AAV7) (11 vehicles: ¥8.4 billion)
Acquisition of amphibious vehicles with excellent maritime mobility and protection ability that support units' amphibious landing efforts on remote islands
 - Development of facilities related to the Amphibious Rapid Deployment Brigade (provisional name) (Ainoura), etc. (¥380 million)



Amphibious vehicle (AAV7)

- Development for an area security unit in the southwestern region (¥74.6 billion)
Develop an office building and other facilities related to the deployment of area security units, etc. in Amami-Oshima and Miyako-jima in order to improve the initial response readiness on remote islands



Key facilities associated with unit deployment (image)

- Upgrade of MSDF Osumi-class LST (¥1.2 billion)
 - Upgrade MSDF Osumi-class LST to enhance transport capability for amphibious operations
 - Acquire parts for upgrades and conduct upgrades necessary for strengthening the opening/closing mechanism of the stern gate which amphibious vehicles pass through and the LST's water pouring/discharging function



MSDF Osumi-class LST

- Bilateral field training exercise with U.S. Marine Corps in the U.S., etc. (Iron Fist and Talisman Sabre)
Send GSDF units to the sea area in the periphery of Camp Pendleton, California, U.S. and the Bradshaw Field Training Area in Australia, in order to conduct exercises on tactical and combat capabilities necessary for operations on remote islands as well as interoperability procedures with the U.S. Marine Corps



Iron Fist

- Participation in joint exercises in the U.S.
Implement joint exercises in the U.S. in order to enhance the SDF's joint operation capabilities and bilateral response capabilities with the U.S. Forces related to attacks on remote islands



Joint exercises in the U.S. (image)

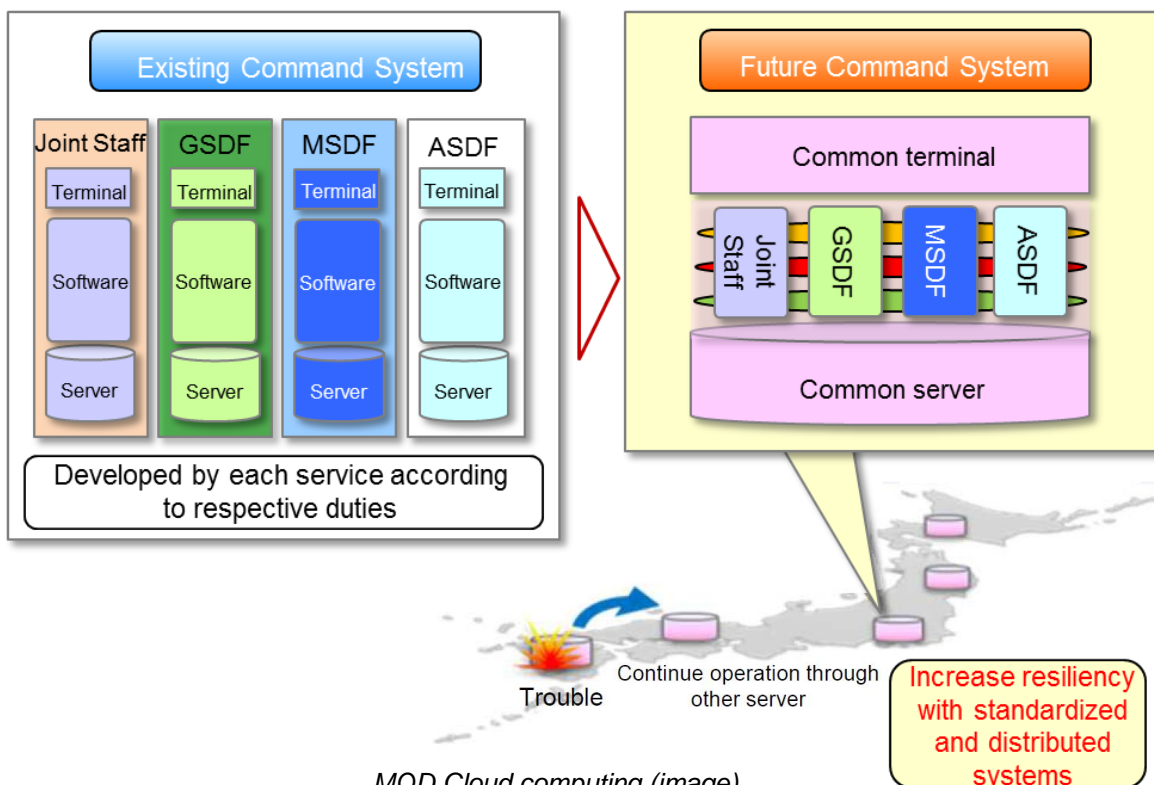
- Implementation of SDF joint exercises (field training exercises)
Conduct exercises related to the operations of the GSDF, MSDF and ASDF in armed attack situations in order to maintain and enhance the SDFs' joint operation capabilities



SDF joint exercises (image)

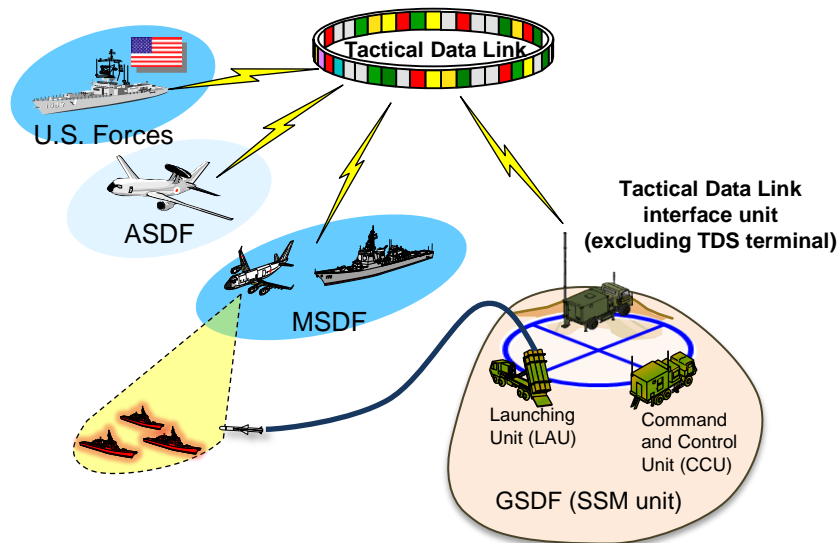
(5) Strengthen the infrastructure for C3I capabilities

- Strengthening of information and communications capability, which is a prerequisite for supporting nation-wide operations
Gradually introduce cloud technology to integrate the command systems that had been developed individually by each SDF service. The integration will increase the system's operational flexibility and resiliency, and at the same time, reduce the costs associated with development and maintenance of the system
 - Replacement of the central command system (design in FY2017) (¥4.4 billion)
 - Establishment/Development of common cloud computing infrastructure, etc. (¥800 million)
 - Establishment/Development of cloud computing infrastructure for the GSDF (¥100 million)
 - Establishment/Development of cloud computing infrastructure for the MSDF (¥3.9 billion)
 - Establishment/Development of cloud computing infrastructure for the ASDF (¥4.0 billion)



MOD Cloud computing (image)

- Introduction of Tactical Data Link (TDL) capability into the GSDF to establish collaborative posture for anti-ship combat with the MSDF, ASDF, and U.S. Forces
 - Development of Tactical Data Link (TDL) interface unit (excluding Tactical Data Distribution system (TDS) terminal) (1 set: ¥300 million)
Allocate expenses for acquiring TDL interface unit (excluding TDS terminal) that is linked to the GSDF surface-to-ship missile (SSM) system, in order to share highly real-time target information and other tactical information among the GSDF, MSDF, ASDF, and the U.S. Forces
 - Human resource development through education entrusted to the U.S. Forces (¥30 million)
Allocate expenses for human resource development intended to foster personnel who operate and manages TDL interface unit



Conceptual image of GSDF SSM operation realized by the introduction of Tactical Data Link capability

3 Response to ballistic missile attacks

Strengthen postures to protect Japan from ballistic missile attacks in multi-layered and sustainable manners. Simultaneously build posture to respond to attacks by guerillas and special operations forces in addition to ballistic missile attacks.

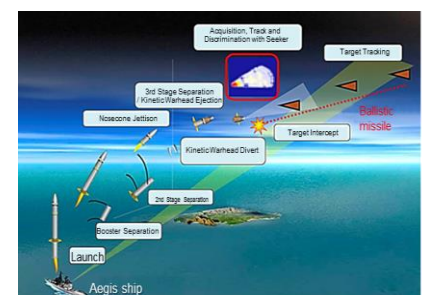
BMD-related budget: ¥187.2 billion

(1) Response to ballistic missile attacks

- Upgrade of the capability of Aegis-equipped destroyers (1 destroyer: ¥12.1 billion)
- Japan-U.S. cooperative development of Advanced Ballistic Missile Interceptor (SM-3 Block IIA) (¥300 million)
Japan and the U.S. will continue their cooperative development of an Advanced Ballistic Missile Interceptor (SM-3 Block IIA) to be deployed on Aegis-equipped destroyers
- Acquisition of an Advanced Ballistic Missile Interceptor (SM-3 Block IIA) (¥14.7 billion)
Acquire an Advanced Ballistic Missile Interceptor (SM-3 Block IIA) to be deployed on Aegis-equipped destroyers
- Introduction of Advanced Interceptor missiles (PAC-3MSE), etc. (¥105.6 billion)
 - Enhance the response capability against ballistic missiles by implementing further modification of the Patriot system for installation and operation of PAC-3MSE missiles and a version upgrade modification (¥98.7 billion)
 - Acquisition of PAC-3MSE missiles (¥6.9 billion)
- Recertification of PAC-3 missiles (¥8.4 billion)
- Conversion of fixed warning and control radar (FPS-7) and addition of functions for BMD response (repost)
- Research on a future ballistic missile interception system (¥60 million)
To enhance permanent readiness, conduct simulation and other research on optimal system to forge MD capability including the introduction of new assets



Atago-class destroyer "Atago"



Conceptual image of operation of the Advanced Ballistic Missile Interceptor (SM-3 Block IIA)



SM-3 Block IIA



*PAC-3MSE missile
(picture of the same equipment type)*



Light armored vehicle

(2) Response to attacks by guerillas and special operations forces

- Devices to detect chemical agents (33 devices: ¥200 million)
- Acquisition of Type-16 mobile combat vehicle (repost)
- Acquisition of light armored vehicles (9 vehicles: ¥400 million)
- Acquisition of personal equipment
Acquisition of Type-89 rifles (2,300 rifles: ¥900 million)

4 Response in outer space

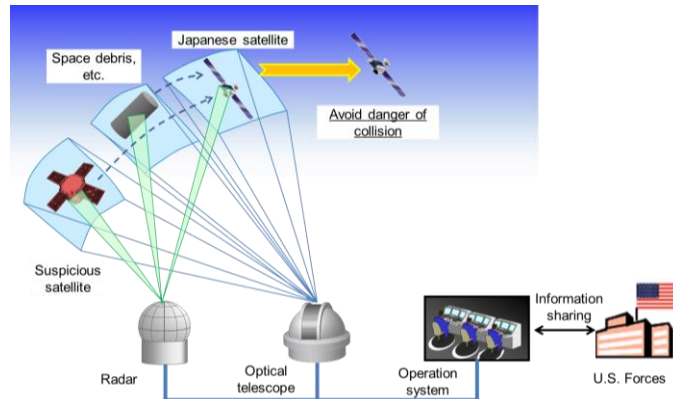
Strengthen information gathering, command, control and communication capabilities by using satellites, and implement measures to secure stable use of outer space

Space-related budget: ¥128.9 billion*

*Excludes the budget of BMD (space-related programs)

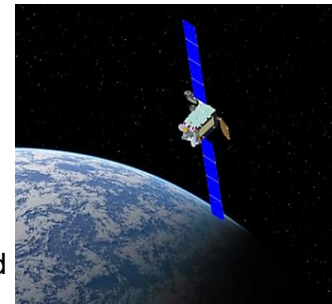
Promotion of space programs

- Efforts related to Space Situational Awareness system (¥1.4 billion)
 - Basic design, etc. concerning the development of a Space Situational Awareness (SSA) system necessary for SSA based on cooperation with the U.S. and relevant domestic organizations
 - Further enhancement of readiness posture for the development of SSA-related facilities and the establishment of an operations manual



Space Situational Awareness system and its operation (image)

- Use of satellite communication (¥113.3 billion)
 - Development, operation and maintenance of X-band defense communication satellite-3 (a successor satellite of Superbird C2), etc.
 - Modification of equipment to adapt to X-band communications satellites
 - Leasing of commercial satellite communication lines and improvement and maintenance of satellite communications equipment



X-band defense communication satellite (image)

- Use of commercial imagery satellites and meteorological satellite information (¥11.0 billion)
 - Acquisition of data for imagery analysis (WorldView-4)
 - Conduct empirical study on use of JAXA Advanced Land Observing Satellite-2 (ALOS-2) and small Earth observation satellite (ASNARO-1) developed by the Ministry of Economy, Trade and Industry
 - Research on intelligence gathering using ultra-small satellites for earth observation
- Research for the enhancement of C4ISR* functions through the use of outer space (¥3.3 billion)
 - Research methodologies for analyzing infrared satellite images (¥60 million)

* C4ISR: Command, Control, Communication, Computer, Intelligence, Surveillance, and Reconnaissance

- Dispatch of personnel to the U.S. Air Force Space Operations Course (¥11 million)

*Budget of BMD space-related programs (¥47.1 billion)

5 Response in cyberspace

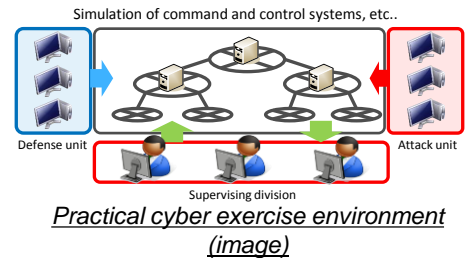
In order to ensure sufficient cybersecurity against cyber attacks at all times, develop necessary readiness, including enhancing the resilience of the SDF's various command and control systems and information and communication networks, and developing a practical training environment where the response capability against cyber attacks can be tested

Cyber-related budget: ¥12.5 billion

(1) Improvement/enhancement of capabilities and systems

- Development of capabilities and systems for practical cyber exercises

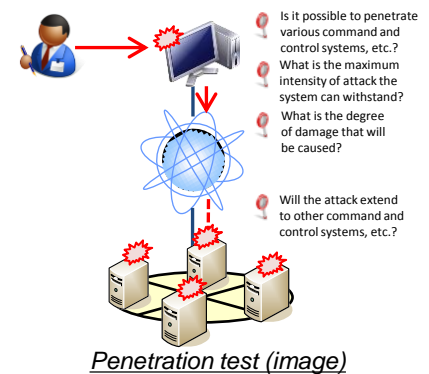
Develop capabilities for implementing exercises using a practical cyber exercise environment simulating command and control systems and/or information and communication systems



- Development of capabilities for conducting penetration tests (*)

Develop capabilities for conducting penetration tests concerning command and control systems and information and communication systems

- * Penetration test: a test intended to check the vulnerability of information systems by attempting penetration into or attacks on real systems using methods similar to those used in actual cyber attacks



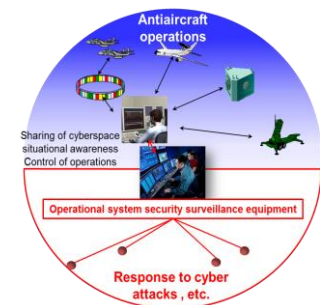
(2) Improvement/enhancement of operational infrastructure

- Development of operational system security surveillance equipment (¥700 million)

Develop security surveillance equipment in order to quickly detect cyber attacks on the ASDF's operational systems and make appropriate response

- Development of a security surveillance posture concerning cloud computing infrastructure (¥2.6 billion)

Design and produce security service programs for the ASDF's cloud computing infrastructure and consolidate and optimize networks within bases



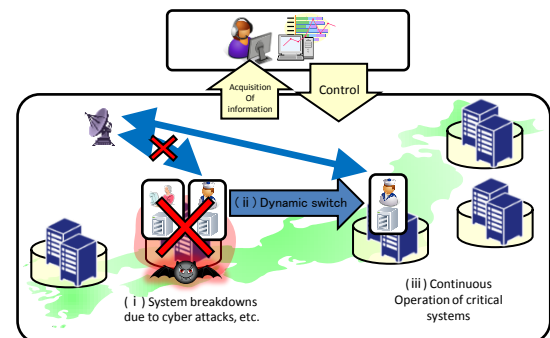
Operational system security surveillance equipment (image)

(3) Research on cutting-edge technologies

- Research on cyber resilience (*) technology to strengthen the response capability against cyber attacks, etc. (¥700 million)

Conduct research intended to continue operation of the information and communication infrastructure of the MOD/SDF in the event of cyber attacks

- * Cyber resilience: capability to respond flexibly and restore the systems to an operable status when command and control systems and information and communication networks have been partially damaged by cyber attacks, etc.



Research on cyber resilience technology to strengthen the response capability against cyber attacks, etc. (image)

6 Response to large-scale disasters

Swiftly transport and deploy sufficiently sized units in the event of various disasters, and develop response readiness that is sustainable over a long-term through establishing a rotating staffing system based on a joint operational approach

(1) Maintenance/enhancement of function of military camps/bases to serve as hubs for disaster response

- Promotion of seismic retrofitting and tsunami defense measures to maintain and enhance functions in preparation for the event of a disaster (¥8.9 billion)
- Establishment of the GSDF Middle Army Helicopter 3rd Squadron (provisional name)
Establish the GSDF Middle Army Helicopter 3rd Squadron (provisional name) at Miho Sub Base (provisional name) in order to enhance the response capability against large-scale disasters in coastal areas facing the Sea of Japan
- Secure deployment footholds for the SDF in the event of disasters (Nara and Fukui) (¥4 million)
Allocate necessary expenses to secure SDF deployment facilities to serve as wide-area disaster response hubs from the perspective of establishing an effective system to handle large-scale disasters

(2) Implementation of exercises, etc. to respond to large-scale and unconventional disasters

- SDF Joint Exercise for Rescue (JXR*)
Implement SDF Joint Exercise for Rescue to maintain and improve the SDF's joint operation capabilities to respond to large-scale domestic disasters, in order to minimize damage through smooth and effective responses in the event of large-scale domestic disasters

* JXR: Joint Exercise for Rescue



SDF Joint Exercise for Rescue (JXR) (image)

- Joint Disaster Response Exercise with U.S. Forces (TREX*)
Implement Joint Disaster Response Exercise with U.S. Forces to establish procedures on coordination with the U.S. Forces in Japan in the event of large-scale domestic disasters, and to maintain and enhance the capability to respond to earthquake disasters

* TREX: Tomodachi Rescue Exercise



Joint Disaster Response Exercise with U.S. Forces (TREX) (image)

- Joint disaster drills on remote islands (RIDEX*)
Implement drills to maintain and enhance capabilities to ensure smooth joint disaster response operations against sudden disasters caused by typhoons, etc. on remote islands

* RIDEX: Remote Island Disaster Relief Exercise



Joint disaster drills on remote islands (RIDEX) (image)

(3) Acquisition, etc. of equipment contributing to disaster response

- Acquisition of tilt-rotor aircraft (V-22) (repost)
- Acquisition of transport helicopters (CH-47JA) (repost)
- Acquisition of ship-based multipurpose helicopter [under source selection] (repost)
- Acquisition of a transport aircraft (C-2) (repost)
- Acquisition of amphibious vehicles (AAV7) (repost)
- Acquisition of light armored vehicles (repost)
- Acquisition of Field Medical surgery System (1 set: ¥200 million)



Field Medical surgery System

- Upgrade of MSDF Osumi-class LST (repost)

Enhancement of capabilities necessary to respond to Nuclear, Biological, and Chemical (NBC) weapons

- Protection from contaminants
Personal protection equipment (3,000 sets: ¥600 million)
- Acquisition of devices to detect chemical agents (repost)



Personal protection equipment

7 Strengthen intelligence capabilities

Strengthen the MOD's system for intelligence collection, processing information, and analyzing and sharing the collected information, in order that the MOD can promptly detect and swiftly respond to warnings of various situations in areas surrounding Japan and take measures based on medium-to-long-term military trends

- Enhancement of the Defense Attaché system
- Research on intelligence gathering using micro earth observation satellites (repost)
Consider the possibility of using micro satellites to conduct wide-area surveillance and detect warning signs by taking advantage of the characteristics of such satellites, which enable high-frequency collection of imagery data when operated in a large number despite their relatively low imagery quality
- Reinforcement of intelligence gathering and analysis capabilities
Establish necessary arrangements at the Defense Intelligence Headquarters (DIH), etc. to boost intelligence gathering and analysis capabilities related to international terrorism and technical information
- Develop a system to share geospatial data possessed and maintained individually by each SDF service and the Defense Intelligence Headquarters throughout the whole of the MOD/SDF so that such data can be effectively and efficiently maintained (development of an integrated geospatial data infrastructure (integrated GDI))
- Develop common infrastructure of the Defense Intelligence Headquarters in order to enhance all-source analysis and to improve the efficiency of information processing
- Acquisition of Unmanned Aerial Vehicles (Global Hawk) (repost)
- Acquisition of data for image analysis (WorldView-4) (repost)
Conduct surveillance in areas surrounding Japan using the MOD's principal optical satellite (WorldView-4), to which MOD has assured tasking right

II Support stabilization of the Asia-Pacific region and improvement of the global security environment

In order to ensure the stability of the Asia-Pacific region, Japan will enhance bilateral and multilateral cooperative relationships and conduct various activities including training and exercises in a timely and appropriate manner, as well as actively engage in international peace cooperation efforts to properly address global security challenges.

1 Response to stabilization of the Asia-Pacific Region

Promotion of capacity building assistance

- New initiatives for comprehensive and effective capacity building assistance for ASEAN countries (¥380 million)
Comprehensively and effectively enhance the capacity of ASEAN countries, as a whole, through human resource development and technical assistance while using external resources
 - Conduct research to define recipient country requirements for maritime security capacity building programs
 - Implement comprehensive HA/DR capacity building projects
 - Conduct research to define recipient country requirements for cyber security capacity building programs
 - Implement programs to enhance ASEAN capability for disposal of landmines and unexploded ordnance

- Continue capacity building assistance for individual countries
 - South East Asia: Timor-Leste, Cambodia, Vietnam, Indonesia, Myanmar, Philippines, [Thailand](#), [Laos](#)
 - East Asia: Mongolia
 - [Central Asia](#): [Kazakhstan](#), [Uzbekistan](#)
 - Oceania: Papua New Guinea



A comprehensive HA/DR project (image)



A project for disposal of landmines and unexploded ordnance (image)

Promotion of defense cooperation and exchange

- Initiatives under the ASEAN Defense Ministers' Meeting-Plus (ADMM-Plus)
Actively promote the enhancement of regional defense and security cooperation through ADMM-Plus, which is the only official meeting of defense ministers in the Asia-Pacific region

- Participation in Pacific Partnership (PP) 2017
Visit countries in the Asia-Pacific region to provide medical services, facilities maintenance and repair services, conduct cultural exchanges, etc. Through cooperation with governments, militaries, international organizations, and NGOs, the PP strengthens partnerships among participating countries and facilitates international disaster relief operations



The fifth ADMM-Plus Humanitarian Assistance/Disaster Relief (HA/DR) Experts' Working Group meeting



Pacific Partnership

2 Appropriate response to the improvement of global security environments

Enhancement of capability to conduct overseas activities

- Participation in multilateral exercises
Participate in multilateral exercises, such as Cobra Gold, in order to enhance capabilities related to international peace cooperation efforts



Cobra Gold (image)

International cooperation with UN and partners in the areas of strength

- Dispatch of instructors to PKO Centers in Africa
The SDF dispatches personnel as instructors in order to educate PKO personnel mainly in African countries to help improve their own peacekeeping capabilities and to maintain stability in the region

Ensuring maritime security

- Counter-piracy operations off the coast of Somalia and in the Gulf of Aden
 - Continue counter-piracy operations by destroyers and P-3Cs off the coast of Somalia and in the Gulf of Aden
 - Carry out activities in Combined Task Force 151 (CTF151), a multinational counter-piracy task force
 - Implement air transportation using C-130H, etc. as necessary



A destroyer escorting commercial vessels



A P-3C patrol aircraft conducting warning and surveillance operations in an airspace over commercial vessels

III Strengthen Japan-U.S. alliance

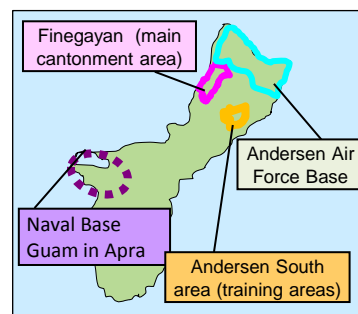
While maintaining the deterrence of U.S. Forces, Japan will steadily implement specific measures including the realignment of U.S. Forces in Japan to mitigate the impact on local communities, including those in Okinawa.

Provisionally kept the same amount as the previous FY: ¥277.1 billion

1 Measures for mitigating the impact on local communities

Relocation of U.S. Marine Corps stationed in Okinawa to Guam

- Funding for projects necessary for the relocation of U.S. Marine Corps Personnel from Okinawa to Guam, etc.



Guam

Realignment of U.S. Forces in Japan

- Relocation of MCAS Futenma
- Return of the lands to the south of Kadena Air Base
- Relocation of Carrier Air Wing from Atsugi Air Facility to MCAS Iwakuni, etc.
- Training Relocation of U.S. aircraft to mainland Japan and Guam from Kadena Air Base and other airfields
- Community development measures (realignment grants, etc.)



MCAS Futenma

Considering that it is important to implement measures that help mitigate the impact on local communities as early as possible, it is necessary to reflect in the budget the results of coordination with local communities, U.S. Forces, etc., For this purpose, MOD will consider carefully during the process of budget making and take necessary measures.

2 SACO-related cost

Provisionally kept the same amount as the previous FY: ¥ 2.4 billion

- Japan will continue to steadily implement those measures in the Special Action Committee on Okinawa (SACO) Final Report unless being subject to change under the Japan-U.S. Security Consultative Committee (2+2) Joint Statement

IV Measures concerning personnel and education

In order to secure highly-qualified human resources (SDF personnel, SDF reserve personnel, etc.) who play a part in national defense while enhancing their strength, the MOD will comprehensively review and appropriately implement necessary measures including recruitment and reemployment, and securing of SDF reserve personnel, etc. and also promotion of several measures to support women's activities.

1 Promotion of measures to secure highly-qualified human resources who play a part in national defense

(1) Enhancement of recruitment programs

- Enhancement of advertisement and readiness for recruitment to deal with the increasingly severe recruitment environment (¥1.0 billion)
 - Create web video contents for advertisement for recruitment (¥200 million)
 - Create web video contents and conduct widespread advertisement utilizing the Internet

(2) Enhancement of reemployment support programs

- Establishment and enhancement of vocational training programs
 - Establish a course for those who prepare for nursery teacher examinations and expand an induction training program for nursing care workers in order to support reemployment in the fields of child care and nursing care, to which the government as a whole attaches importance (¥5 million)
 - Establish courses for prospective warehouse managers, those who prepare for maritime officer examinations, etc. in order to enhance support for reemployment in the logistics and shipping industries (¥5 million)
 - Expand education concerning disaster prevention / crisis management in order to enhance support for reemployment at disaster prevention-related divisions of local governments (¥30 million)



An induction training program for nursing care workers (exercise)



Education on disaster prevention / crisis management (exercise)

- Implementation of career counseling service for SDF personnel scheduled to retire (¥300 million)
Start mobile counseling service using female counselors in order to appropriately provide support, including advice concerning industries in which many women work

(3) Promotion of measures related to SDF reserve personnel, etc. who support sustainable operation of units

- Establishment of the “Continuous Service Incentive Allowance for Government-designated Industries (tentative) (¥60 million)
Secure sustained service of SDF reserve personnel and ready reserve personnel and promote social understanding of retired SDF personnel and the system for SDF reserve personnel, etc. by providing financial incentives to such personnel who have worked for a long period of time in industries which have high social needs but lack human resources(*)

* Establish a provision concerning this financial incentive under the SDF Act and designate industries under the Order for the Enforcement of the SDF Act. In FY2017, industries in the nursing care field will be designated

- Establish the “Reserve Fund for Calling up SDF Reserve Personnel, etc.” (Tax reform request)
In order to ensure sustained cooperation through the system for the SDF reserve personnel, etc. from domestic corporations employing SDF reserve personnel or SDF ready reserve personnel, request the establishment of a program under which the accumulated amount can be included in gross expense when a corporation accumulates the cost required for call-up of their employees as SDF reserve personnel, etc. as reserve fund



Activities conducted by SDF ready reserve personnel after the Kumamoto Earthquake Disaster in 2016

(4) Others

- Promotion of measures to prevent power harassment

2 Promote measures to ensure further engagement of female personnel and the work-life balance

Further expand recruitment and promotion of female personnel while implementing initiatives to integrally promote work-life balance



Female SDF personnel in action

(1) Improvement of the environment for the working style reform (¥1.9 billion)

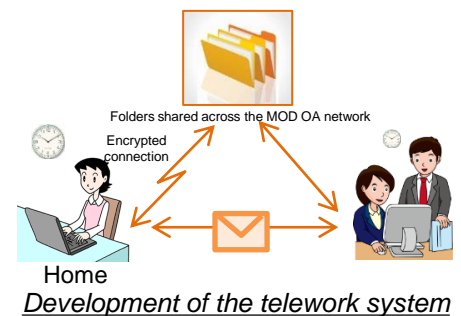
- Improve various systems to develop a working environment that enables all personnel, including those who face time constraints due to child care, nursing care, and other personal reasons., to fully exercise their capabilities (¥1.4 billion)
 - Provision of tablet terminals and terminals for videotelephone conference
 - Provision of terminals for telework, mobile phones, etc.
- Construct a multi-story parking garage in the Ichigaya area in order to contribute to the working style reform by improving the car commuting environment through measures such as enabling personnel using the Ichigaya child care center to commute to the MOD with children (¥440 million)
- Hold lecture meetings to raise awareness about the work-life balance at SDF camps, etc.



Construction of a multi-story parking garage (image)



A scene of an awareness-raising lecture meeting



(2) Improvement of the working environment for female SDF personnel (¥1.5 billion)

- Improve the environment for female SDF personnel
 - Develop spaces for women (ASDF bases, etc.)
 - Develop residential spaces in the boarding facility for students (National Defense Academy), etc.



Develop spaces for women (image)
(eg. renovation of barracks for female SDF personnel)



Develop spaces for women (image)
(e.g. construction of a bathhouse for female personnel)

- Development training of mentors
- Invite outsourced counselors for female SDF personnel, etc.

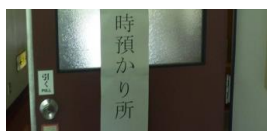
(3) Improving work-life balance (¥70 million)

- Establishment of child-care facilities on SDF premises, research and design work for establishing new facilities and renovating existing ones, provision of furniture/fixture, etc. (¥50 million)
Develop child-care facilities on premises suitable for work shifts peculiar to SDF so that personnel raising children can engage in their duties without concern
 - Newly establish child-care facilities ([National Defense Medical College](#))
 - Research and design work for establishing new child-care facilities and renovating existing ones ([Komaki and Iruma Air Bases of the ASDF](#))
 - Provide furniture/fixture. for child-care facilities in SDF buildings
- * Note: The Ichigaya child care center, which is scheduled to be opened in FY2017, will be operated as a nursery within a business facility upon approval from the Shinjuku Ward.



Child-care facilities in SDF buildings (image)

- Provision of furniture/fixture for temporary child-care service in case of emergency call (¥20 million)
 - Provide furniture/fixture such as safety mats and baby beds for temporary child-care service in case of emergency call (27 sites)
 - Implement temporary child-care service drills, preparing for an emergency call
 - Participate in courses designed to improve child-care skills for temporary child-care service in case of emergency call (MSDF)



A scene from temporary child-care service in the drill for an emergency call

(4) Promotion of female personnel engagement in international cooperation, etc. (¥3 million)

- Exchanges with servicewomen from other countries (a symposium on the further engagement of female personnel)
- Dispatch SDF personnel for training as gender advisors
Send SDF personnel to “Gender Field Advisor Course” (sponsored by the Swedish Armed Forces) in order to introduce the perspective of eliminating gender (*) disparity in international peace cooperation efforts, etc.

* Gender: Distinction between men and women formed historically, socially, and culturally, such as the “male image” and “female image,” instead of sex that shows the biological difference between males and females

(5) Implementation of training and drills. for raising awareness (¥10 million)

Effort to eliminate the conventional mindset about gender roles in the workplace and develop the work environment that enables all personnel, including those under time pressure due to child-care, and nursing care to demonstrate their full potential

- Joint training for promoting gender equality, etc. (GSDF, MSDF, and ASDF)
- [Distribution of pamphlets featuring activities of female personnel](#)



A scene of the joint training

(6) Others (¥50 million)

- Promotion of measures to prevent sexual harassment, etc.
- [Start mobile counseling service using female counselors in order to appropriately provide support, including advice concerning business categories in which many women work \(repost\)](#)

3 Personnel management system reform

Steadily implement measures related to the personnel management system reform from the perspective of ensuring the SDF's strength and effectively securing personnel amid the severe fiscal situation, the increasing sophistication and complexity of equipment, and the diversification and internationalization of duties in recent years, while taking into consideration various factors including skills, experience, physical strength, and morale

V Streamlining Initiatives

Various initiatives will be promoted to further rationalize and streamline overall equipment acquisitions, seeking to save approx. ¥173.7 billion

1 Procurement of equipment, etc. and services using long-term contracts

[Expected reduction: approx. ¥67.7 billion]

Pursue the reduction of procurement cost and stable acquisition by making use of long-term contracts of five fiscal years or longer

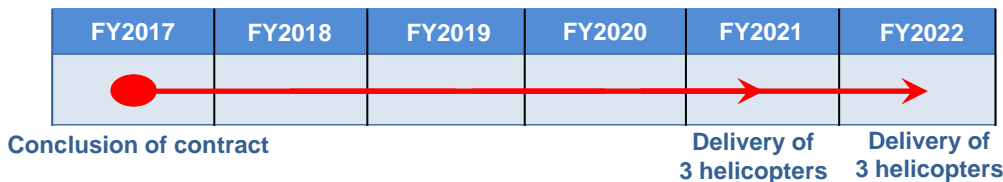
- Bulk acquisition of 6 ASDF transport helicopters (CH-47JA) under long-term contract (procured over 6 fiscal years)

(Expected reduction: approx. ¥7.6 billion (14.3%))



Cargo helicopters (CH-47JA)

[Acquisition under long-term contract (Image)]



Total: ¥45.6 billion

**Reduction: ¥7.6 billion
(Minus 14.3%)**

- Modification intended to enable the installation and operation of PAC-3MSE missiles by using a long-term contract (procured over 6 fiscal years)

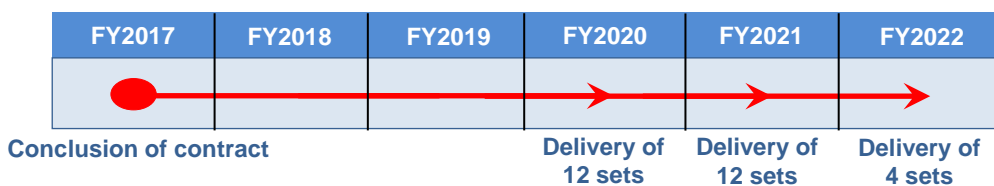
(Expected reduction: approx. ¥57.7 billion (30.5%))

The above figure includes the reduction of ¥24.7 billion, including non-recurring costs, expected to be achieved through the use of civilian goods and review of specifications, in addition to the reduction expected to be achieved through a long-term contract.



PAC-3MSE missile

[Acquisition under long-term contract (Image)]



**Total: ¥131.2 billion
¥98.7 billion, excluding
non-recurring costs**

**Reduction: ¥57.7 billion
(Minus 30.5%)**

- Long-term contract of Performance Based Logistics (PBL) in order to improve operational availability and ensure timely and adequate parts supply posture, etc.

- Transport aircraft (C-130R) (procured over 6 fiscal years)
(Expected reduction: approx. ¥2.4 billion (16.5%))



Transport aircraft (C-130R)

2 Review maintenance methods [Expected reduction: 59.3 billion]

Streamline maintenance costs by extending periodic maintenance intervals

[Example]

- Acquisition of engines of CH-47JA through the modification of existing engines and maintenance (Expected reduction for 12 engines: approx. ¥3.5billion)
- Use of common program testing equipment for destroyers (Hyuga and Murasame classes) (Expected reduction: approx. ¥2.6 billion)
- Consolidation of functions associated with the introduction of a cloud computing system, and common use of software programs (ASDF cloud computing system (provisional name)) (Expected reduction: approx. ¥2.8 billion)



Cargo helicopters (CH-47JA)



Hyuga-class destroyer

3 Use of civilian goods and review of specifications

[Expected reduction: 41.9 billion]

Pursue cost savings by using civilian goods and reviewing specifications of equipment with regard to cost effectiveness

[Example]

- Development of a new ship-to-air missile based on a similar domestically-developed missile (Expected reduction: approx. ¥14.8 billion)

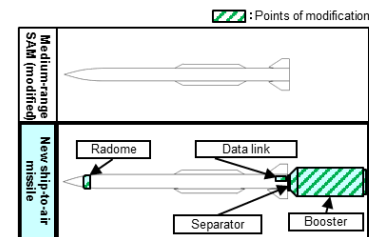


ASDF cloud computing system (provisional name) (image)

4 Bulk purchase of equipment

[Expected reduction: approx. ¥4.8 billion]

Streamline budget costs by reviewing equipment with high prices due to small-lot purchases and long-term maintenance and by concentrating budget requests for them in a single fiscal year if cost savings can be expected



New ship-to-air missile (image)

5 Amount of reduction achieved through past streamlining efforts

Example	FY2014	FY2015	FY2016	FY2017	FY2018
Procurement of equipment, etc. and services using long-term contracts	—	¥41.7 billion	¥14.8 billion	¥67.7 billion	
Review maintenance methods (Logistics reform)	¥8.1 billion	¥33.6 billion	¥43.2 billion	¥59.3 billion	
Use of civilian goods and review of specifications	¥25.0 billion	¥42.3 billion	¥45.5 billion	¥41.9 billion	
Bulk purchase of equipment	¥33.1 billion	¥35.0 billion	¥46.5 billion	¥4.8 billion	
Single-year total	¥66.0 billion	¥153.0 billion	¥150.0 billion	¥173.7 billion	Amount of required cost reduction ¥157.3 billion
Total	¥66.0 billion	¥219.0 billion	¥369.0 billion	¥542.7 billion	¥700.0 billion

(Note) The figures for FY2017 are expected reductions in the budget request.

VI Initiatives to promote defense equipment and technology policies

1 Promote strategic initiatives to ensure technological superiority

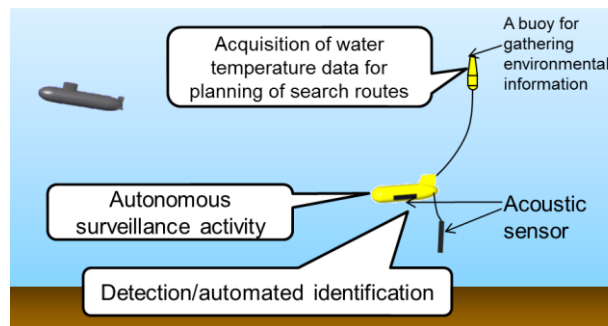
Promote strategic initiatives, including enhancing research and development and expanding the Innovative Science & Technology Initiative for Security (funding program), based on the Japan Defense Technology Strategy (announced in August 2016)

Promotion of prioritized research in promising technology fields

Place priority on fields related to (i) unmanned technology, (ii) smart and network technology, (iii) high-power energy technology, and (iv) Improvement of function and performance of existing equipment in the Medium-to-Long Term Defense Technology Outlook (announced in August 2016)

- Research on autonomous surveillance technology and a sensor system for unmanned underwater surveillance vehicles (¥900 million)

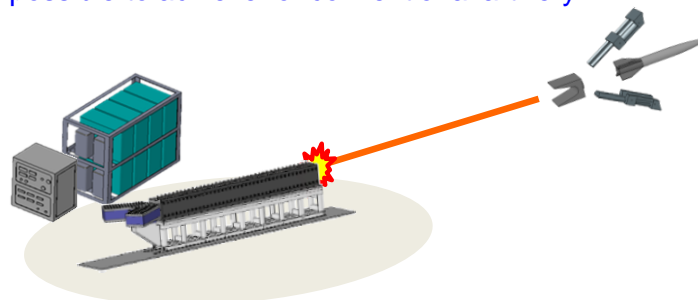
Conduct research on autonomous surveillance technology and a sensor system used in unmanned underwater vehicles that will significantly enhance the underwater surveillance capability



Research on autonomous surveillance technology and a sensor system for unmanned underwater surveillance vehicles (image)

- Research on cyber resilience technology (repost)
- Research on an electro-magnetic acceleration system to increase the projectile velocity (¥2.1 billion)

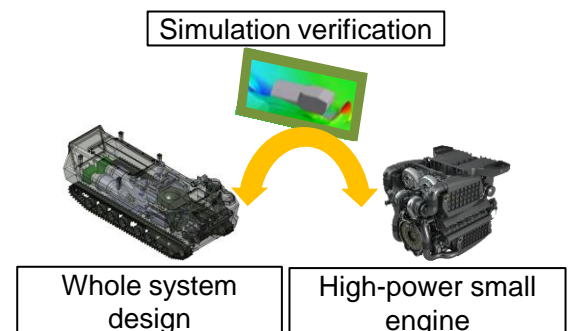
Conduct research on an innovative electromagnetic acceleration system intended to extend the range and increase the destructive power of projectiles by increasing the projectile velocity to a level that would be impossible to achieve for conventional artillery



Research on an electromagnetic acceleration system to increase the projectile velocity (image)

- Research intended to enhance future amphibious technology (¥4.4 billion)

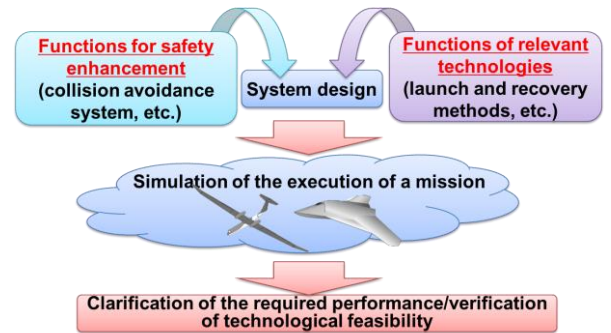
- Research on future amphibious technology (¥2.4 billion)
Conduct research concerning a whole system design using a simulation model and the reduction of the size of high-power engines in order to enhance sea-surface mobility, etc.
- Research on a multi-environment simulator for vehicles (¥2.0 billion)
Conduct research on a simulator that enables vehicle simulations under simulated onshore, water's edge and off-shore environments



Research on future amphibious technology (image)

Research and development based on the Technology R&D Vision of Future Unmanned Equipment (announced in August 2016)

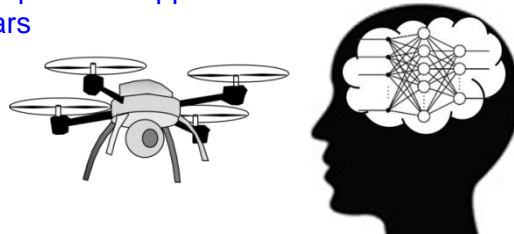
- Study on a vision of unmanned aerial vehicles with a high level of safety and reliability (¥80 million)
Conduct a feasibility study toward realizing unmanned aerial vehicles for long-distance, out-of-sight operation with emphasis placed on safety and reliability in order to enable operation suited to Japan's geographical features



Study on a vision of unmanned aerial vehicles (image)

Promotion of quick practical application of evolving cutting-edge civilian technologies to defense equipment

- Initiative to realize quick practical application of new technologies (¥400 million)
Incorporate rapidly-evolving cutting-edge civilian technologies, including drones and artificial intelligence (AI), and pursue practical application of them to defense equipment in a short period of time, around three to five years



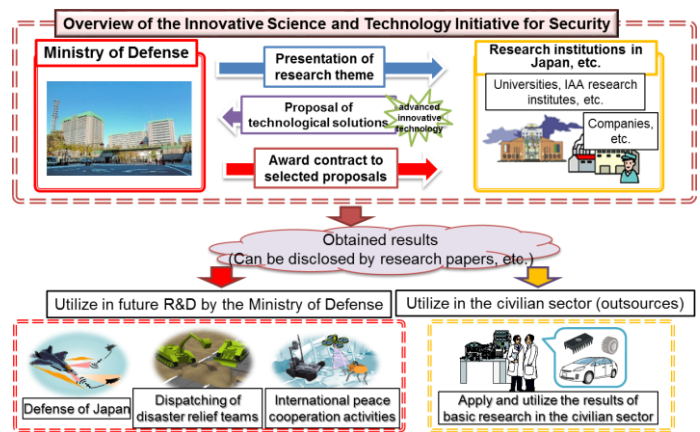
Drone

Artificial intelligence (AI)

Examples of new technologies to be incorporated into defense equipment (image)

Discovery and promotion of cutting-edge technologies expected to be used for defense applications

- Innovative Science & Technology Initiative for Security (funding program) (¥11.0 billion)
Established in FY2015 in order to discover ingenious research programs by universities, IAA research institutes, companies, etc. which may be applicable to defense equipment
Expand the Innovative Science & Technology Initiative for Security in FY2017 to promote cutting-edge research programs where large-scale investments are effective from the perspective of the budget amount and the research period



Outline of the Innovative Science & Technology Initiative for Security

Strengthen the technology management system in order to protect Japanese technologies

- Research concerning technology management (¥90 million)
Conduct research using superior outside knowledge in order to obtain information necessary for appropriately and quickly evaluating sensitivity in strict examination related to the Three Principles on Transfer of Defense Equipment and Technology

Research on the status of the use of private-sector knowledge, etc.

- Conduct research on the status of the use of private-sector knowledge, etc. in other countries in order to promote defense equipment and technology policies (¥30 million)

2 Promote optimal acquisition through project management, etc.

Strengthen project management and steadily promote acquisition programs concerning equipment intended for prioritized project management and also implement initiatives that give consideration to joint operation and standardization

Steadily promote acquisition programs concerning equipment intended for prioritized project management

Promote acquisition at an appropriate cost based on the Acquisition Strategic Plan, which prescribes basic matters concerning acquisition and project management, including lifecycle cost

- Acquisition programs concerning equipment intended for prioritized project management
 - Type-03 medium range surface-to-air missile (improved), Unmanned Aerial Vehicles (Global Hawk), Amphibious vehicle (AAV7), Tilt-rotor aircraft (V-22), Transport aircraft (C-2), and F-35A fighter aircraft (repost)
 - Japan-U.S. cooperative development of Advanced Ballistic Missile Interceptor (SM-3 Block IIA) (repost)

Promote the development of equipment in consideration of the perspective of joint operations

- Efficient development based on categorization
 - Develop the Type-12 surface-to-ship missile (improved) and a new air-to-ship missile for patrol aircraft based on a new ship-to-ship missile (under development) (repost)
 - Develop a new ship-to-air missile based on the Type-03 medium range surface-to-air missile (improved) (repost)
- Study on the development of equipment in consideration of the perspective of joint operation (¥3 million)
Conduct a study on application of existing technologies to other defense equipment in order to enhance the operability of the equipment in joint operations among different services and to reduce costs

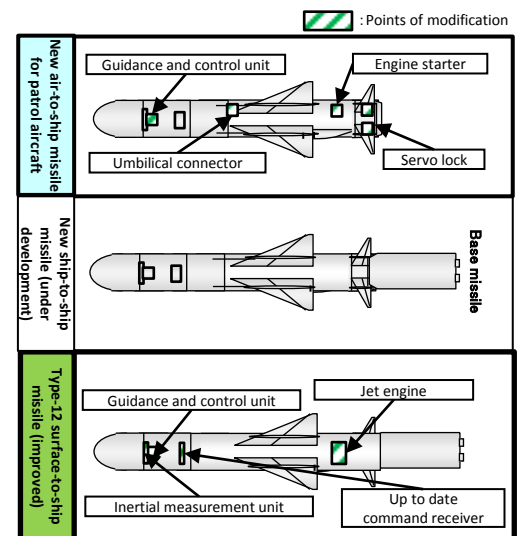


Image of the standardization of the Type 12 surface-to-ship missile (improved) and a new air-to-ship missile for patrol aircraft

Strengthen project management

- Study on enhancing the capabilities to estimate the life cycle cost improvements of project management (¥90 million)
- Implement training programs outsourced to outside educational organizations that are intended to develop personnel who possess professional knowledge and skills related to the acquisition of defense equipment (¥30 million)

3 Promoting defense equipment and technology cooperation

Strengthen the measures to realize effective defense equipment and technology cooperation based on in collaboration with the private sectors through information gathering on partner countries' needs, "packaged" cooperation including assistance for maintenance, and enhancement of raising publicity, based on the progress of cooperative projects with the countries

- Strategic research intended to realize cooperation suited to other countries' circumstances
 - Clarify cooperation partner countries' needs and the feasibility of cooperation by conducting research on their procurement systems and production and technological bases (¥400 million)
 - Promoting cooperative projects meticulously with other countries through long-term dispatch of personnel of the Acquisition, Technology and Logistics Agency who engage in defense equipment cooperation (¥40 million)
- Promotion of comprehensive cooperation not only equipment itself but also maintenance
 - Expenses for dispatching personnel of Japanese maintenance companies as a capacity building assistance measure concerning the maintenance of the TC-90s in the Philippines (¥300 million)
 - Dispatching private-sector engineers to ASEAN countries for the purpose of enhancing maintenance capacity (¥30 million)
- Public relations concerning Japanese defense equipment based on collaboration between the government and industries
 - Open exhibition booths of the Acquisition, Technology and Logistics Agency at international defense equipment exhibitions and appeal domestic superior technologies possessed by small and medium-size enterprises (¥100 million)
 - Conduct research on organizers of international exhibitions of defense equipment held abroad and the status of governments' involvement in such exhibitions (¥50 million)
 - Inviting engineers and government officials in the Asia-Pacific region and personnel of foreign think tanks in order to promote understanding of Japanese technologies and defense equipment (¥40 million)
- Initiative toward conformity with international standards
 - Hold an international conference and develop systems related to the NATO Codification System(*) in order to transmit information concerning defense equipment developed in Japan to foreign countries and share such information with them (¥200 million)



TC-90 aircraft scheduled to be transferred to the Philippines



A booth of the Acquisition, Technology and Logistics Agency (Eurosatory 2016)

* NATO Codification System: a system for sharing information concerning equipment among NATO country and Sponsorship of non-NATO countries for the purpose of efficient supply and management of equipment

4 Promote measures to maintain and enhance defense production and technological bases

Regarding the defense industry in a severe environment, promote measures to strengthen the technological bases, including discovering and using superior technologies possessed by small and medium-size enterprises and meticulously grasping the actual circumstances at the supply chain level.

- Discovery and use of technologies possessed by small and medium-size enterprises
 - Create opportunities for small and medium-size enterprises possessing technologies applicable to defense equipment to enter the defense market and match them with the MOD/SDF, making use of exhibitions (¥20 million)
 - Discover advanced civilian technologies through a program for quick practical application of new technologies (repost)



Image of an initiative related to small and medium-size enterprises

- Visualize supply chains and respond to risks related to their information systems
 - Regarding the supply chain of the domestic defense industry, conduct research intended to identify risks, or companies with critical technologies and in order to take necessary measures (¥100 million)
 - Conduct research intended to develop and enhance regulations concerning procurement corresponding to the supply chain risk of information systems (¥20 million)
- Research on a new method of promoting the acquisition reform
 - Conduct research on a method of reducing procurement cost of defense equipment by using outside knowledge or by strengthening cooperation between the public and private sectors, and establish a specific procurement system based on the research (¥100 million)

VII Others

1 Restructuring and organizational quota changes

Implement unit reorganization programs in order for effective deterrence and response to various situations

- Establishment of the Ground Central Command (provisional name)
Establish the Ground Central Command (provisional name) in order to enable swift and flexible nationwide operation of basic operational units (divisions and brigades) and various units under joint operations
- Establishment of the Amphibious Rapid Deployment Brigade (provisional name)
In order to develop sufficient amphibious operational capability to enable the SDF to land, recapture and secure without delay any remote islands that might be invaded, establish the Amphibious Rapid Deployment Brigade (provisional name)
- Reorganization into rapid deployment divisions and rapid deployment brigades
Reorganize the 8th Division and the 14th Brigade into a rapid deployment division and a rapid deployment brigade which are both equipped with advanced mobility and surveillance capability in order to enable them to respond swiftly to and deal effectively with various situations
- Establishment of the GSDF Education, Training, Research and Development Command (provisional name)
Establish the GSDF Education, Training, Research and Development Command (provisional name) in order to enhance the GSDF's education, training and research functions
- Establishment of the GSDF Intelligence School (provisional name)
Establish the GSDF Intelligence School (provisional name) in order to enhance intelligence education in the GSDF
- Establishment of the Southwestern Air Defense Force (provisional name)
Abolish the Southwestern Composite Air Division and establish the Southwestern Air Defense Force (provisional name) in order to enhance the air defense posture in the southwestern region
- Request for increase in the number of SDF personnel
Increase the number of SDF personnel in order to enhance the response capability against ballistic missiles and the surveillance capability in the southwestern region in order to improve the readiness to quickly respond to various situations

	GSDf	MSDF	ASDF	Total
Request for increase in the number of personnel	+ 1 9 8	+ 2 3 7	+ 1 8 1	+ 6 1 6

* Excluding changes in the number due to the revised quota of SDF personnel

- Organizational quota changes
 - Establish the Komatsu Defense Office (provisional name) under the Kinki-Chubu Defense Bureau in order to swiftly and politely respond to requests from local governments in relation to the transfer of units
 - Establish the Office of Practical Use of New Technology (provisional name) under the technology planning officer of the Technology Strategy Division of the Acquisition, Technology and Logistics Agency in order to promote quick realization of practical application of evolving cutting-edge consumer technologies to defense equipment

2 Promote measures for SDF bases

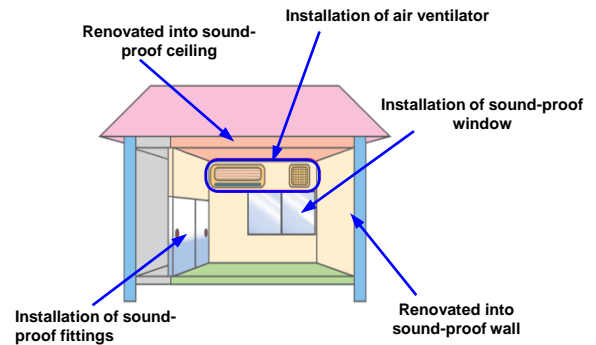
Steadily implement measures for communities around bases and promote measures to secure smooth and effective stationing of the U.S. Forces in Japan in order to ensure harmony between defense facilities and neighboring communities

(1) Expenses related to programs for communities around bases **¥128.8 billion**

Including: Residential sound insulation: ¥40.6 billion
Improvement of living environment of neighboring communities: ¥88.3 billion

- Expenses for the prevention of disturbances resulting from SDF activities or the establishment and operations of defense facilities
 - Implementation of sound insulation projects for residences around air bases, etc.
 - Implementation of projects to improve the living environment of neighboring communities (river and road restoration, sound-proofing systems in schools, improvement of public welfare facilities, etc.)
 - Implementation of projects covered by specified defense facilities environment improvement adjustment grants, which are strongly requested from municipalities around bases (development of public facilities and so-called soft projects, such as medical cost subsidies, etc.)

[Example of residential sound insulation]



River restoration

(2) Cost-sharing for the stationing of U.S. Forces in Japan **¥196.2 billion**

Including: Special Measures Agreement: ¥146.8 billion
Facilities improvements: ¥22.2 billion
USFJ employee measures, etc.: ¥27.2 billion

- Expenses of the Special Measures Agreement to ensure the smooth and effective stationing of U.S. Forces in Japan
 - Share the cost of wages of USFJ employees and cost of utilities used at USFJ facilities
 - Improve facilities (barracks, family housing, etc.)
 - Share the cost of social insurance premiums by the employer (healthcare insurance, welfare annuity insurance, etc.) for USFJ employees



Barracks

(3) Rental cost of facilities, compensation expenses, etc. **¥138.5 billion**

- Rental cost of defense facility land, etc., compensation for the loss of fishers' income due to training on water areas, etc.

3 Strengthen education and research systems

Implement measures to strengthen education and research systems at the National Institute for Defense Studies, the National Defense Academy, and the National Defense Medical College, as well as develop an environment enabling personnel to devote themselves to their duties

(1) The National Institute for Defense Studies

- Enhance international research exchanges
 - Start research exchange with the National Defense College of the Philippines and Central Asian countries (Kazakhstan Institute for Strategic Studies, etc.)
 - Promote exchanges of opinions with government officials and major research institutions in other countries with respect to “East Asian Strategic Review” and “NIDS China Security Report,” etc.
- Enhance the exhibition of war history-related reference materials
 - Prepare new war history-related reference materials, such as replicas, following the relocation to the Ichigaya area

(2) The National Defense Academy

- Develop the education and research system
 - Increase the teaching staff in order to enhance education programs in undergraduate courses (Department of Public Policy and Department of Electric and Electronic Engineering)

(3) The National Defense Medical College

- Strengthen the functions of the college as a hub for education and research in the field of military medicine
 - Develop clinical skills laboratories, etc. (¥200 million)
 - Conduct advanced research on military medicine (¥330 million)
- Strengthening of the planning function
 - Strengthen the planning function of the college and hospital by reorganizing some departments in order to improve the comprehensive planning and coordination capability of the college as a whole and the management of the hospital
- Improvement/enhancement of clinical systems
 - Increase the number of staff of the National Defense Medical College Hospital to cope with medical care for Type I infectious diseases and strengthen medical safety and infection control



4 Strengthen health functions

Promote initiatives for upgrading SDF hospitals to hubs with enhanced functions and establish an efficient and high-quality medical care system, including improved management of the National Defense Medical College Hospital, etc. In addition, greater emphasis will be placed on securing and training of medical officers, nurses, and emergency medical technicians. Furthermore, strive to enhance frontline first aid capabilities and develop postures for rapid evacuation of the injured personnel

- Initiatives toward upgrading SDF hospitals to hubs with enhanced functions
Steadily promote development of a core hospital in each district and hospitals with special functions including education of international activities, submarine medicine, and aviation medicine
 - Design for rebuilding of Fukuoka Hospital (the main hospital in the Kyushu area) (¥300 million)
 - Site preparation work for the construction of Iruma Hospital (provisional name) (¥300 million)
 - Development toward the conversion of JSDF Central Hospital's medical care information system, etc. (¥100 million)
- Improve frontline first aid capabilities in response to emergency events
Development of educational equipment in order to enhance the first aid capability on the frontlines (¥80 million)
 - Develop a simulator as an educational equipment intended to help acquire skills required for the treatment of gunshot wounds and other injuries



Image of educational training using a simulator

- Enhance capabilities in response to infectious diseases
 - Develop human resources specialized in infectious diseases (¥5 million)
 - Build facilities and procure equipment for development of a structure for treatment of patients with Type I infectious diseases at the National Defense Medical College Hospital and JSDF Central Hospital (¥200 million)
 - Increase the number of staff of the National Defense Medical College Hospital to cope with medical care for Type I infectious diseases and strengthen medical safety and infection control (repost)



Image of response toward infectious diseases

- Initiatives contributing to smooth activities of SDF in the southwestern region
Expenses related to a study on medical facilities in Okinawa Prefecture (¥20 million)

5 Tax reform request

○ Establishment of the “Reserve Fund for Calling-up SDF Reserve Personnel, etc.”

[corporate tax, corporate inhabitant tax and enterprise tax] (repost)

In order to ensure sustained cooperation through the system for the SDF reserve personnel, etc. from domestic corporations employing SDF reserve personnel or SDF ready reserve personnel, request the establishment of a program under which the accumulated amount can be included in gross expense when a corporation accumulates the cost required for call-up of their employees as SDF reserve personnel, etc. as reserve fund.



Activities conducted by SDF ready reserve personnel after the Kumamoto Earthquake Disaster in 2016

○ Extension of special measures such as an exchange of business asset related to the aircraft noise reduction project (relocation measure)

[income tax and corporate tax]

- Request a three-year extension of the special measure related to the tax on income from sale when selling business asset owned in aircraft noise impact areas (Type II area as specified under the provision of Article 5, Paragraph 1 of the Act on the Improvement of the Living Environment in Areas Surrounding Defense Facilities) around defense facilities in exchange for property in areas outside aircraft noise impact areas

○ Establishment of a special tax exemption measure when providing tax-exempt light-oil based on the U.S. and Others’ Military Actions Related Measures Act, etc.

[light-oil delivery tax]

- Request the establishment of a special tax exemption measure which is exemption of deemed taxation related to tax-exempt light-oil provided as a power source for vessels of foreign armed forces in logistic activities based on the U.S. and Others’ Military Actions Related Measures Act, the Act Concerning Measures to Ensure Peace and Security of Japan in Situations that will Have an Important Influence on Japan’s Peace and Security, the International Peace Support Law, and the Ship Inspection Operations Law

○ Expansion of a special tax exemption measure when providing tax-exempt light-oil based on ACSA

[light-oil delivery tax]

- Regarding a special tax exemption measure which is exemption of deemed taxation related to tax-exempt light-oil provided as a power source for vessels of Australian armed forces based on the Japan-Australia ACSA, request the expansion of the measure to cover tax-exempt light-oil provided to armed forces of foreign countries with which Japan will sign an ACSA in the future based on the ACSA

○ Expansion of a special deduction of corporate tax when conducting experimental research

(joint request: Ministry of Economy, Trade and Industry, etc.)

[income tax, corporate tax and corporate inhabitant tax]

- Request the introduction of a scheme that adjusts the deduction rate applied to the total amount of expenses for experimental research in accordance with changes in the amount of expenses for experimental research

- Request the extension of the “high-level based type” among other add-on deduction measures

*“High-level based type”: deduction applied when the ratio of expenses for experimental research to sales reached over 10%

6 Others

- Acquisition of flight check aircraft [under source selection]
Acquire new flight check aircraft in order to ensure the flight safety of SDF and civilian aircraft by maintaining and managing the airfield functions through checks on the functions of aircraft safety facilities established by the SDF



Flight check aircraft
(the pictured aircraft are existing ones)
(above: YS-11FC; below: U-125)

Major equipment

1 Major equipment

Procurement type		FY2016 Number procured	FY2017			
			Number procured	Amount (¥100 million)		
Aircraft	GSDF	Tilt-rotor aircraft (V-22)	4	4	393	
		CH-47JA	—	6	456 (154)	
	MSDF	Patrol helicopter (SH-60K)	17	—	—	
		Ship-based multipurpose helicopter	—	Undergoing source selection	Undergoing source selection	
		Life extension of fixed-wing patrol aircraft (P-3C)	(3)	(3)	18	
		Life extension of patrol helicopter (SH-60K)	(1)	(2)	38 (11)	
		Life extension of patrol helicopter (SH-60J)	(2)	(2)	10	
		Life extension of imagery intelligence gathering aircraft (OP-3C)	(—)	(1)	7 (1)	
		Capability improvement of radars mounted on fixed-wing patrol aircraft (P-3C)	Upgrade	(10)	(15)	5
			Parts	(7)	(—)	
	ASDF	Fighter aircraft (F-35A)	6	6	946	
		Improvement of air-to-air combat capability of fighter aircraft (F-2)	Upgrade	(9)	(16)	53
			Parts	(12)	(9)	
		Additional installment of JDCS function to fighter aircraft (F-2)	(4)	(12)		
		Transport aircraft (C-2)	—	3	667 (19)	
		Rescue helicopter (UH-60J)	8	—	—	
		New airborne early-warning aircraft (E-2D)	1	—	—	
		Improvement of the capability of Airborne Warning And Control Systems (AWACS) (E-767)	Upgrade	(—)	(2)	220
			Parts	(1)	(—)	
		Additional installment of air-to-air refueling function on transport aircraft (C-130H)	Upgrade	(—)	(—)	16
Parts	(1)	(1)				
New aerial refueling and transport aircraft (KC-46A)	—	1	318			
Joint Unit	Unmanned Aerial Vehicle (Global Hawk)	—	1	173		
Vessel	MSDF	Aegis-equipped destroyer (DDG)	1	—	—	
		Submarine (SS)	1	1	760 (76)	
		Ocean minesweeper (MSO)	—	1	178 (15)	
		Ocean surveillance (AOS)	—	1	234 (3)	
		Life extension of Asagiri-class destroyer	Work	(—)	(1)	6
			Parts	(3)	(4)	
		Life extension of Abukuma-class destroyer	Work	(—)	(2)	16
			Parts	(—)	(2)	
		Life extension of Hatakaze-class destroyer	Work	(—)	(1)	16
			Parts	(1)	(—)	
		Life extension of Kongo-class destroyer	Work	(—)	(1)	18
			Parts	(1)	(—)	
		Life extension of Oyashio-class submarine	Work	(4)	(3)	38
			Parts	(4)	(6)	
		Life extension of Landing Craft Air Cushion	Work	(2)	(2)	1
			Parts	(—)	(—)	
		Life extension of Kurobe-class training support vessel	Work	(—)	(1)	4
			Parts	(1)	(—)	
		Life extension of Towada-class fast combat support ship	Work	(1)	(—)	2
			Parts	(—)	(2)	
Capability improvement of short-range SAM system on Takanami-class destroyer	Work	(—)	(—)	—		
	Parts	(5)	(—)			
Modernization of destroyer CIWS (high-performance 20mm autocannon)	Work	(4)	(4)	44		
	Parts	(—)	(12)			

Procurement type			FY2016 Number procured	FY2017		
				Number procured	Amount (¥100 million)	
Vessel	MSDF	Improvement in anti-submarine capability of Atago-class destroyer (MFTA)	Work	(1)	(1)	3
			Parts	(1)	(-)	
		Improvement in anti-submarine capability of Akizuki-class destroyer, etc. (multistatic)	Work	(1)	(-)	2
			Parts	(-)	(3)	
		Improvement in anti-submarine capability of Murasame-class destroyer (surface vessel torpedo tubes)	Work	(-)	(1)	0.5
			Parts	(-)	(2)	
		Modernization of command system of Asagiri-class destroyer	Work	(-)	(1)	4
			Parts	(5)	(-)	
		Modernization of command system of Takanami-class destroyer	Work	(1)	(-)	-
			Parts	(3)	(-)	
		Modernization of command system of Murasame-class destroyer	Work	(-)	(-)	3 (2)
			Parts	(-)	(1)	
		Modernization of command system of Hyuga-class destroyer	Work	(-)	(-)	27 (2)
			Parts	(-)	(1)	
Modernization of command system of Oyashio-class submarine	Work	(-)	(1)	23 (1)		
	Parts	(2)	(1)			
Improvement in capability of Osumi-class LST	Work	(1)	(1)	12		
	Parts	(1)	(1)			
Missile	GSDF	Type-03 middle-range surface-to-air missile (modified)	-	1 company	177 (158)	
		Type-11 short-range surface-to-air missile	1	1	45	
		Middle-range multi-purpose missile	12 sets	5 sets	41	
		Type-12 surface-to-ship missile	1	1	81 (2)	
	ASDF	Surface-to-air missile for base air defense	-	0.5	30	
Firearm, vehicle, etc.	GSDF	Type-89 rifle	3,000	2,300	9	
		Anti-personnel sniper rifle	-	6	0.2	
		5.56mm machine gun MINIMI	30	48	2	
		60mm mortar (B)	1	5	0.2	
		84mm recoilless rifle (B)	6	3	0.3	
		81mm mortar L16	1	1	0.1	
		120mm mortar RT	5	6	3	
		Type-99 155mm self-propelled howitzer	6	6	66	
		Type-10 tank	6	6	76	
		Amphibious vehicle (AAV7)	11	11	84	
		Type-16 mobile combat vehicle	36	33	237	
		Light armored vehicle	-	8	4 (2)	
		Vehicle, communications equipment, facility equipment, etc.	310 (7)	-	306 (30)	
BMD	MSDF	Upgrade of the capability of Aegis-equipped destroyers	(2)	(1)	121 (1)	
	ASDF	Upgrade of the Patriot surface-to-air missile (PAC-3MSE)	-	12	421 (325)	

Note 1: The procurement amount for FY2016 indicates the number that was envisioned in the original budget.

Note 2: Price represents amounts, excluding non-recurring costs, needed for the production of equipment. The non-recurring costs are indicated in parentheses in the amount column (external value).

Note 3: "Number procured" indicates the number newly contracted in FY2017. (The period for acquiring the item varies by equipment, but can take between two to five years.)

Note 4: The number in brackets represents the number related to upgrading the existing commissioned equipment.

Note 5: Regarding the procurement for the capability improvement of radars mounted on fixed-wing patrol aircraft (P-3C), improvement of air-to-air combat capability of fighter aircraft (F-2), improvement in capability of Airborne Warning And Control Systems (AWACS) (E-767), addition of aerial refueling function to transport aircraft (C-130H), capability improvement of short-range SAM system on Takanami-class destroyer, modernization of destroyer CIWS (high-performance 20mm autocannon), improvement in anti-submarine capability of Atago-class destroyer (MFTA), improvement in anti-submarine capability of Akizuki-class destroyer, etc. (multistatic), improvement in anti-submarine capability of Murasame-class destroyer (surface vessel torpedo tubes), modernization of command system of Asagiri-class destroyer, modernization of command system of Takanami-class destroyer, modernization of command system of Murasame-class destroyer, modernization of command system of Hyuga-class destroyer, modernization of command system of Oyashio-class submarine, and improvement in capability of Osumi-class LST, the upper figure represents the procurement of modification and work services for the existing commissioned equipment, while the lower figure represents the number of parts, etc. necessary for the capability improvement. One set to be procured for improvement in the capability of Airborne Warning and Control Systems (E-767) in FY2016 indicates a portion of the parts, etc. necessary for improving the capabilities of four aircraft. Regarding the volume of procurement for the service life extension of vessels, the upper figure represents the number of ships subject to service life extension work and the lower figure represents the number of parts procured for service life extension work.

Note 6: The number of procurements for the upgrade of the capability of Aegis-equipped destroyers represents the number of procurements for upgrading two Atago-class destroyers with Ballistic Missile Defense (BMD) capability, which started in FY2012.

Note 7: Regarding the upgrade of the Patriot surface-to-air missile (PAC-3MSE), only the number of sets excluding those that have undergone a version upgrade modification is indicated.

2. Major research and development programs

	Item	Overview	FY2017 Amount (¥100 million)
New	Development of a new ship-to-air missile	Develop a long-range ship-to-air missile capable of countering enemy aircraft, etc. in order to strengthen the air defense capability of destroyers	90
	Development of the Type-12 surface-to-ship missile (modified) and a new air-to-ship missile for patrol aircraft	Develop the Type-12 surface-to-ship missile (modified) with upgraded functions and performance, including a longer range compared with existing missiles and a new air-to-ship missile for patrol aircraft in order to enhance the capability to counter enemy surface vessels, etc.	116
	Research on cyber resilience technology to strengthen the response capability against cyber attacks, etc.	Research intended to realize continuous operation of information and communication infrastructure of the MOD/SDF in the event of cyber attacks	7
	Research on autonomous surveillance technology and a sensor system for unmanned underwater surveillance vehicles	Conduct research on autonomous surveillance technology and a sensor system for unmanned underwater vehicles that will significantly enhance the underwater surveillance capability	9
	Research on an electromagnetic acceleration system to increase the shell speed	Conduct research on an innovative electromagnetic acceleration system intended to extend the range and increase the destructive power of shells by increasing the shell speed to a level that would be impossible to achieve for conventional artillery	21
	Research intended to enhance future amphibious technology	Research on future amphibious technology	Conduct research concerning a whole system design using a simulation model and the reduction of the size of high-power engines in order to enhance sea-surface mobility
Research on a multi-environment simulator for vehicles		Conduct research on a simulator that enables vehicle simulations under simulated onshore, water's edge and off-shore environments	20

3. Changes in the number of SDF personnel

● Changes in the number of SDF personnel, etc.

(Unit: Person)

	End of FY2016	End of FY2017	Change
GSDP	158,938	158,950	12
Regular personnel	150,863	150,875	12
Ready reserve personnel	8,075	8,075	0
MSDF	45,364	45,364	0
ASDF	46,940	46,950	10
Joint units	1,253	1,259	6
Joint Staff Office	368	370	2
Defense Intelligence Headquarters	1,911	1,911	0
Internal Bureau	48	49	1
Acquisition Technology and Logistics Agency	407	407	0
Total	247,154	247,185	31
	(255,229)	(255,260)	(31)

Note 1: Figures for the end of each fiscal year are budget figures

Note 2: The number in the parentheses includes the number of SDF ready reserve personnel

● Number of SDF personnel (annual average)

(Unit: Person)

	GSDP	MSDF	ASDF
Annual average	139,899	42,099	43,360

● Number of SDF reserve personnel

(Unit: Person)

	GSDP	MSDF	ASDF	Total
SDF reserve personnel	46,000	1,100	800	47,900

● Number of candidates for reserve personnel

(Unit: Person)

	GSDP	MSDF	Total
SDF reserve candidates	4,600	21	4,621

● Change in number of administrative officials, etc.

(Unit: Person)

	FY2016	FY2017	Remarks
Increase	166	394	
Rationalization, etc.	△265	△266	
Total	△99	128	
Number at the end of FY	21,067	21,195	

Note 1: Including the Minister, State Minister, two Parliamentary Vice-Ministers, and Senior Adviser to the Minister

Defense-related expenditures

1. Overall defense-related expenditures

[Expenditures (classified into three categories)]

(Unit: ¥100 million)

	FY2016 Budget	YR/YR	FY2017 budget request	YR/YR
	Defense-related expenditures	48,607 (50,541)	386[0.8] (740[1.5])	49,735 (51,685)
Personnel and provisions expenses	21,473	351[1.7]	21,551	78[0.4]
Material expenses	27,135 (29,069)	34[0.1] (389[1.4])	28,184 (30,134)	1,050[3.9] (1,065[3.7])
Obligatory outlay expenses	17,187 (18,377)	5[0.0] (118[0.6])	17,958 (19,165)	772[4.5] (788[4.3])
General material expenses (activity expenses)	9,948 (10,692)	30[0.3] (271[2.6])	10,226 (10,969)	278[2.8] (277[2.6])

(Note)

1. [] : growth rate (%)

2. Figures may not add up to the total due to rounding (the same hereinafter)

3. The upper figures in each cell do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new government aircraft. The lower number in parentheses indicates the expenses which include those above.

The amount of the SACO-related expenses are:

FY2016: ¥2.8 billion; FY2017: ¥2.8 billion (provisionally kept the same as the previous FY).

The U.S. Forces realignment-related expenses (the portion allocated for reducing the burden on local communities) are:

FY2016: ¥176.6 billion; FY2017: ¥176.6 billion (provisionally kept the same as the previous FY)

Expenses related to the introduction of new dedicated government aircraft are:

FY2016: ¥14.0 billion; FY2017: ¥15.6 billion.

4. Exchange rate for FY2017 defense budget request: US\$ = JPY110

[Future obligation concerning new contracts]

(Unit: ¥100 million)

	FY2016 Budget	YR/YR	FY2017 budget request	YR/YR
	Total	20,800 (22,875)	△2,198[△9.6] (△2,749[△10.7])	22,997 (25,052)
Conventional portion	19,681	66[0.3]	21,445	1,764[9.0]
Long-term contracts	1,119	△2,265[△66.9]	1,551	432[38.6]

(Note)

1. [] : growth rate (%)

2. The upper figures in each cell do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft. The lower number in parentheses indicates the expenses which include those above.

The amount of the SACO-related expenses are:

FY2016: ¥1.0 billion; FY2017: ¥1.0 billion (provisionally kept the same as the previous FY)

The U.S. Forces realignment-related expenses (the portion allocated for reducing the burden on local communities) are:

FY2016: ¥204.3 billion; FY2017: ¥204.3 billion (provisionally kept the same as the previous FY)

The expenses related to the introduction of new government aircraft are:

FY2016: ¥2.2 billion; FY2017: ¥200 million.

3. The FY2017 budget request includes expenses of ¥100 billion related to the maintenance and operation of the X-band satellite communication system.

4. Details of long-term contract in FY2016: Patrol helicopter (SH-60K) X 17 aircraft ¥102.0 billion

Performance Based Logistics (PBL) of Special transport helicopter (EC-225LP) ¥4.3 billion

Performance Based Logistics (PBL) of Training helicopter (TH-135) ¥5.6 billion

FY2017: Helicopter (CH-47JA) X 6 aircraft ¥45.6 billion

Performance Based Logistics (PBL) of Transport aircraft (C-130R) ¥10.9 billion

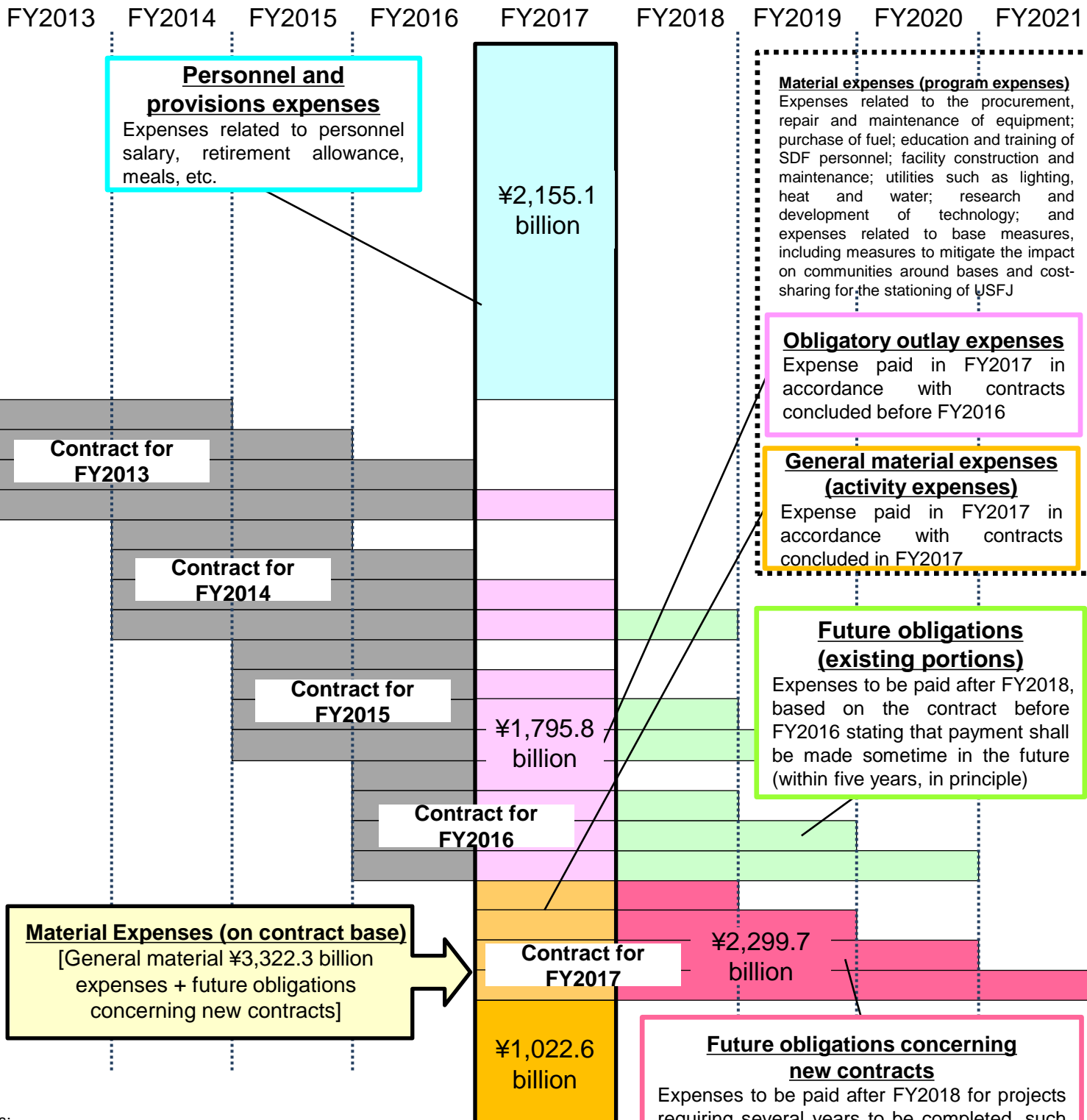
Upgrade of the Patriot system, etc.-X28 set ¥98.7 billion

Composition of defense-related expenses

Expenditures: ¥4,973.5 billion

[Personnel and provisions expenses + obligatory outlay expenses + general material expenses]

(Fiscal Year)



Notes:

1. The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.
2. This chart is a rough diagram. The length of a box does not necessarily correspond to the actual amount of expenses.
3. Future obligations concerning new contracts include expenses to be paid after FY2022 in association with the introduction of a PFI project related to the maintenance and operation of the X-band satellite communication system and long-term contracts for the procurement of equipment.

Future obligations concerning new contracts
 Expenses to be paid after FY2018 for projects requiring several years to be completed, such as procurement of major equipment like ships and aircraft, construction of hangers and barracks, etc., based on a contract stating that payment shall be made sometime in the future (within five years, in principle)

2. Breakdowns of material expenses (program expenses)

[Details and classification of material expenses (program expenses)] (Unit: ¥100 million)

FY2017	Expenditure base	Contract base
Material expenses (program expenses)	28,184	33,223
Obligatory outlay expenses	17,958	
General material expenses (Activity expenses)	10,226	10,226
Future obligation concerning new contracts		22,997

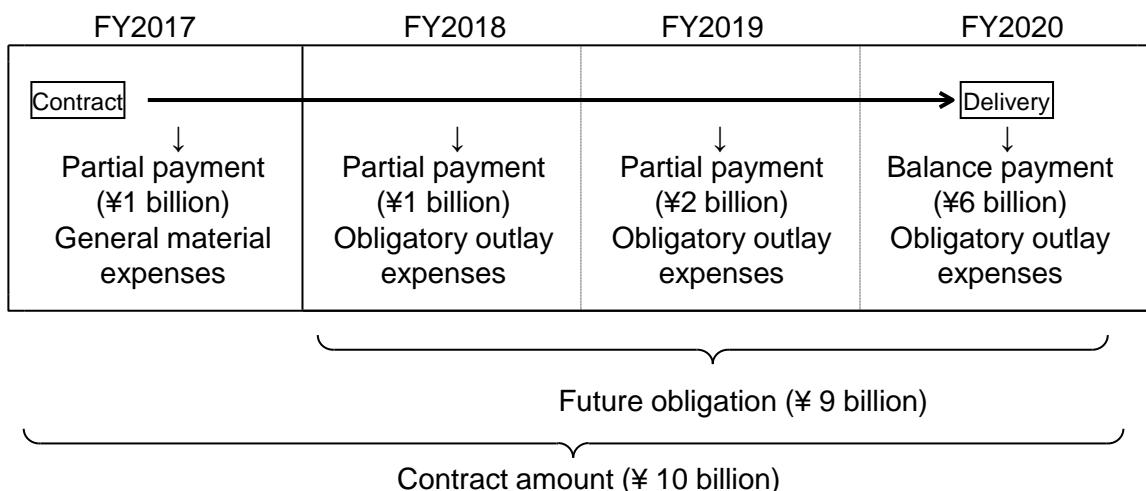
- **Expenditure base:** Total amount to be paid in the current fiscal year for projects like acquisition of equipment and facility development. Specifically, it is the sum of the expenses to be paid in FY2017 (general material expenses) based on the contracts concluded in FY2017 and the expenses to be paid in FY2017 (obligatory outlay expenses) based on the contracts concluded before FY2016. This is a useful point of view in understanding the share of defense-related expenses in the overall expenditure budget of the government, which is in principle an annual budget.
- **Contract base:** Total amount of contracts concluded in the current fiscal year for projects like acquisition of equipment and facility development. Specifically, the sum of the expenses to be paid in FY2017 and the expenses to be paid after FY2018 (future obligation pertaining to new contracts) based on the contracts concluded in FY2017. This is a useful point of view in understanding the total amount of expenses by program with respect to year-by-year projects for developing defense capabilities.

Concept of Future Obligation

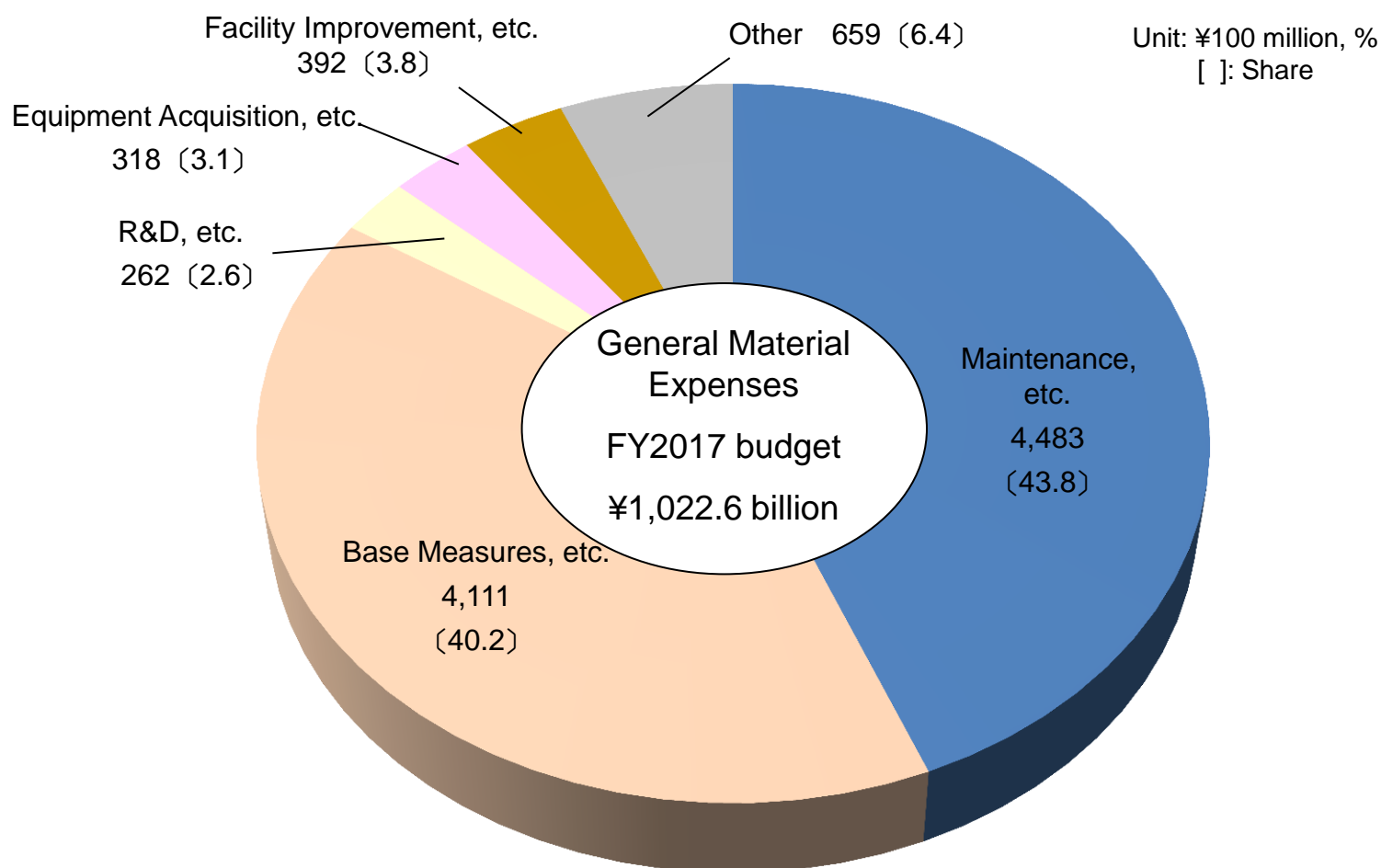
The build-up of defense capabilities, such as procurement of major equipment including vessels and aircraft, as well as construction of hangars and accommodations for SDF personnel, may take several fiscal years. For this reason, the Ministry of Defense makes contracts for which the span is several fiscal years (up to five years, in principle), and, at the time of concluding a contract, makes an advance commitment to pay the expenses at a certain time in the future.

Future obligation refers to the amount which will be paid in the fiscal year or years following the year the contract is concluded, in accordance with the contract of several fiscal years.

(e.g.) ¥10 billion worth of equipment is procured under a four-year contract



Details of General Material Expenses (Activity Expenses)

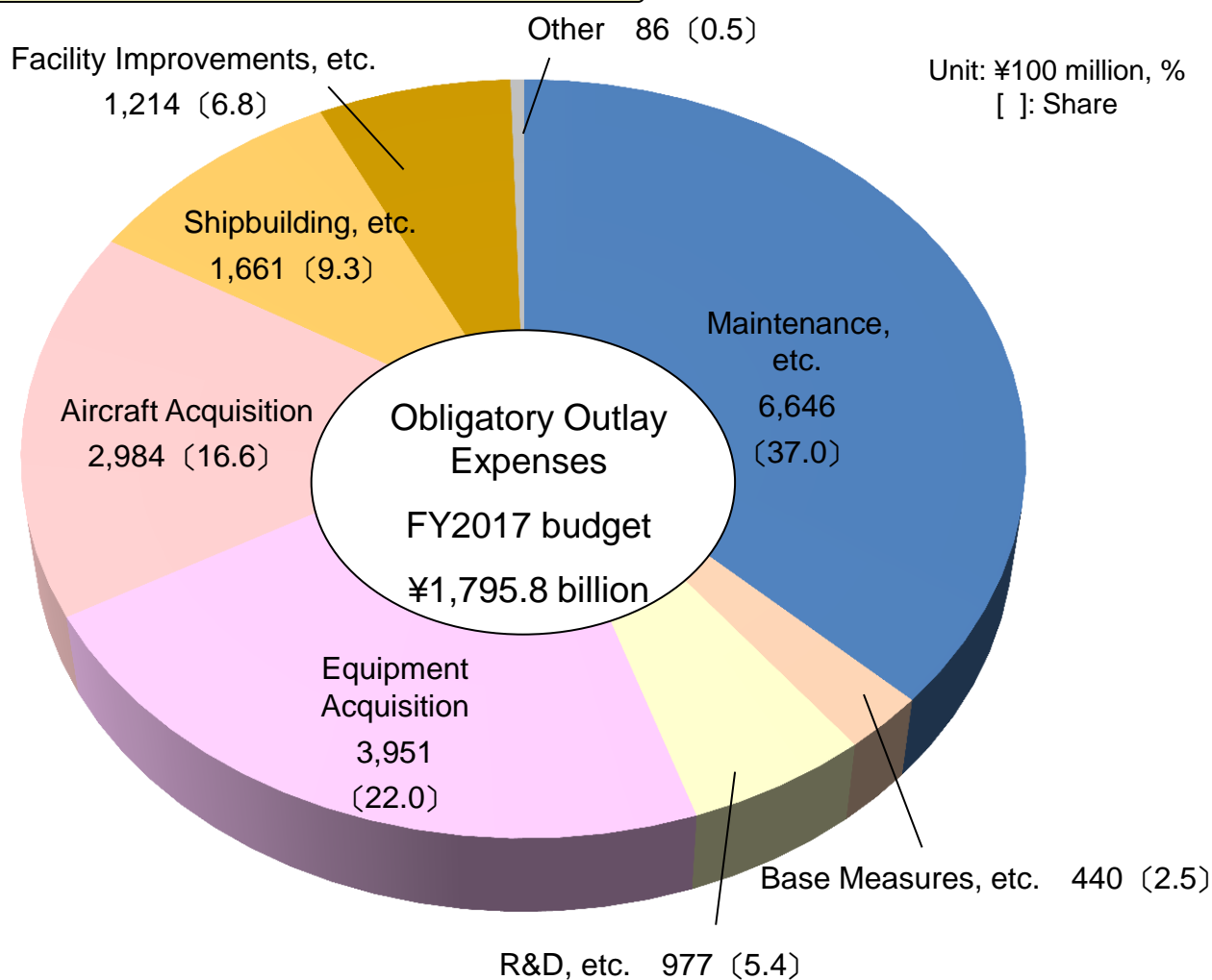


(Unit: ¥100 million)

Item	FY2016	FY2017	YoY Change
Maintenance, etc.	4,267	4,483	216
• Petrol	1,025	1,000	△26
• Repair	1,724	1,895	171
• Education & Training	290	310	20
• Medical Care, etc.	267	274	7
• Utilities	960	1,005	45
Base Measures, etc.	4,081	4,111	29
• Community Grants	956	964	8
• Host Nation Support	1,768	1,787	19
• Rent, Compensation Costs, etc.	1,358	1,360	2
Research & Development	275	262	△13
Equipment Acquisition, etc.	330	318	△11
Facility Improvements, etc.	359	392	33
Other (computer rentals, etc.)	635	659	23
Total	9,948	10,226	278

Note: 1. The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.

Details of Obligatory Outlay Expenses

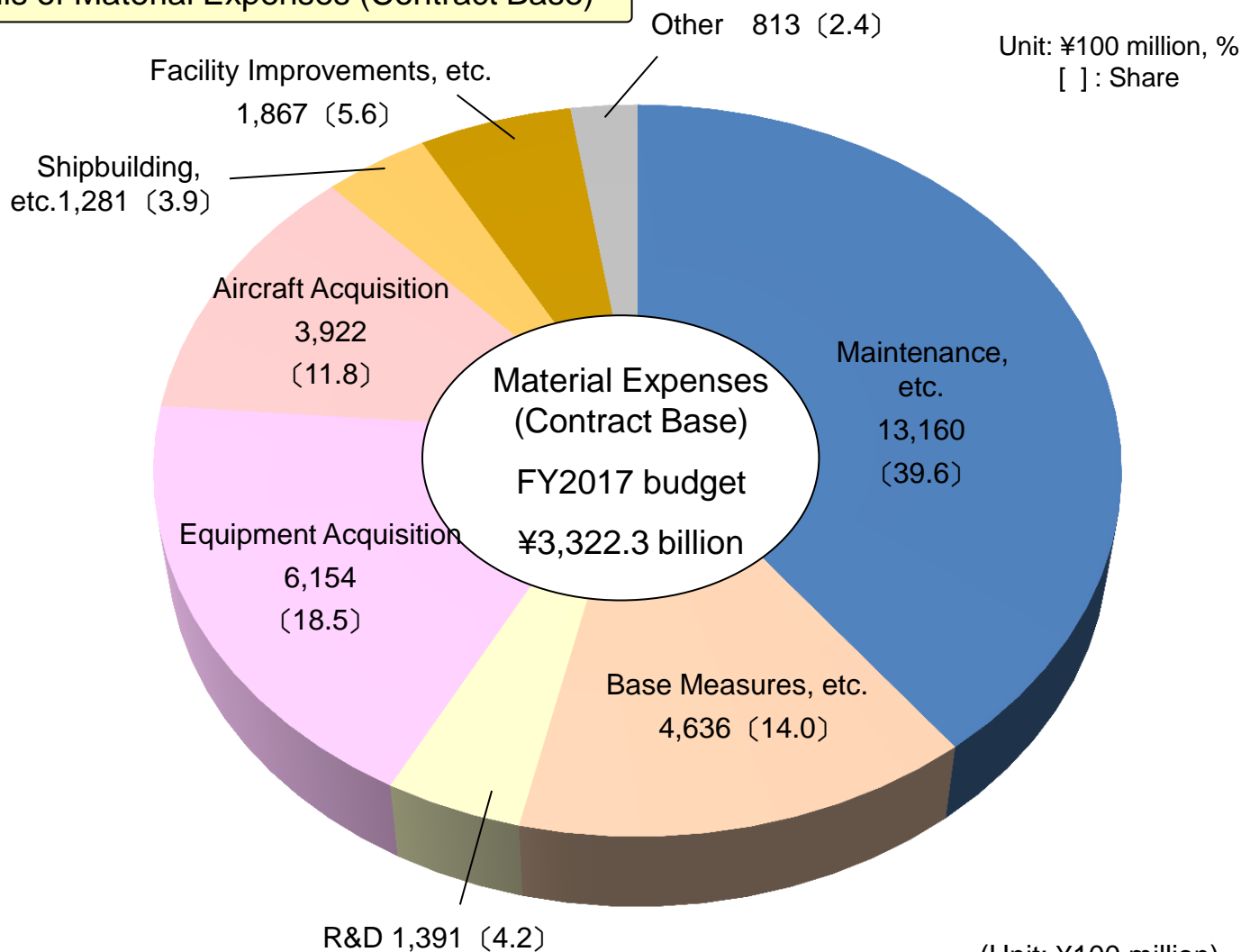


(Unit: ¥100 million)

Item	FY2016	FY2017	YoY Change
Maintenance, etc	7,440	6,646	△793
Repair	7,062	6,266	△795
Education & Training, etc.	378	380	2
Base Measures	428	440	12
Research & Development	780	977	197
Equipment Acquisition	3,789	3,951	162
Aircraft Acquisition	1,893	2,984	1,090
Shipbuilding, etc.	1,647	1,661	14
Facility Improvements, etc.	1,102	1,214	112
Other (computer rentals, etc.)	108	86	△23
Total	17,187	17,958	772

Note: 1. The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.

Details of Material Expenses (Contract Base)



(Unit: ¥100 million)

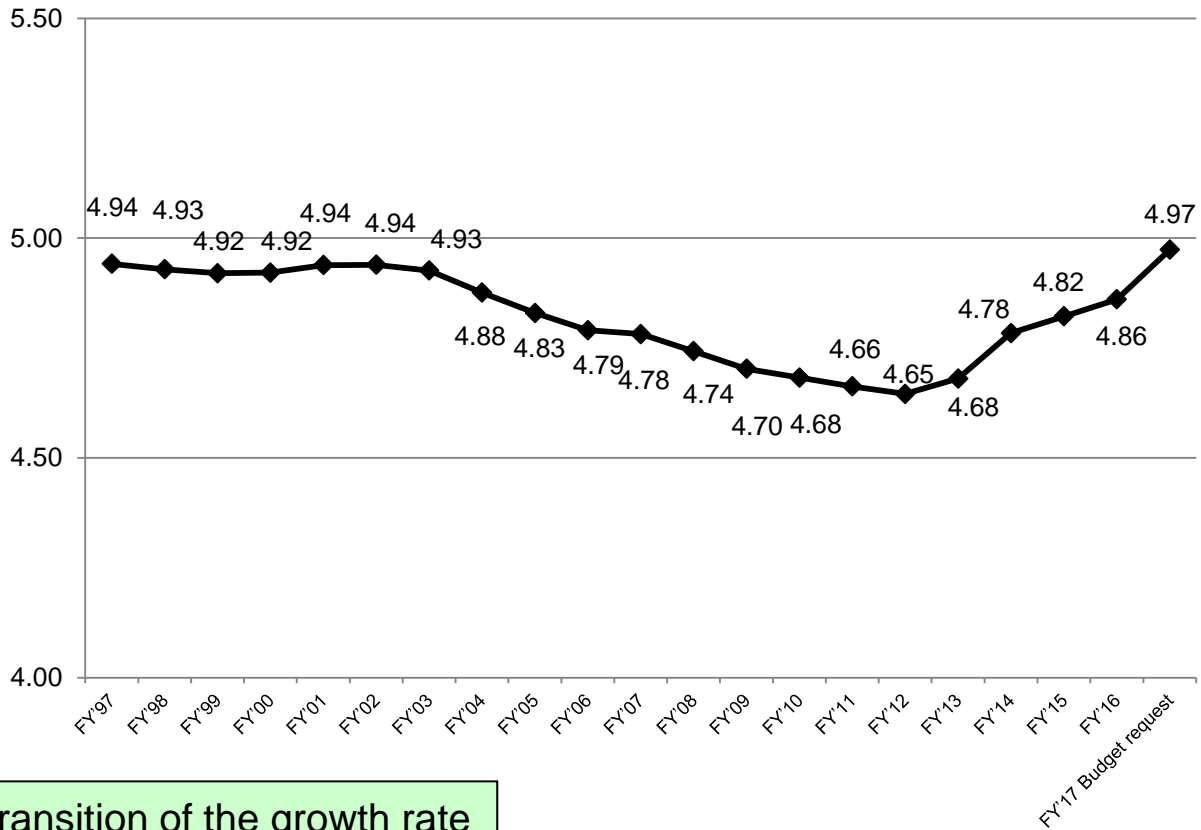
Item	FY2016	FY2017	YoY Change
Maintenance, etc.	11,656	13,160	1,504
Petrol	1,025	1,000	△26
Repair	8,818	10,331	1,513
Education & Training, etc.	1,812	1,829	17
Base Measures, etc.	4,536	4,636	100
Research & Development	1,211	1,391	180
Equipment Acquisition	5,203	6,154	951
Aircraft Acquisition	4,232	3,922	△311
Shipbuilding, etc.	1,567	1,281	△286
Facility Improvements, etc.	1,541	1,867	326
Other (computer rentals, etc.)	803	813	10
Total	30,748	33,223	2,475

Note: 1. The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.
2. The repair cost in the FY2017 budget request includes expenses of ¥100 billion related to the maintenance and operation of the X-band satellite communication system.

(Reference) Changes in defense-related expenditures

Changes in total amount

(¥1 trillion)



Transition of the growth rate

	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003
Growth rate	2.0	Δ0.3	Δ0.2	0.0	0.3	0.0	Δ0.3

	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010
Growth rate	Δ1.0	Δ1.0	Δ0.8	Δ0.2	Δ0.8	Δ0.8	Δ0.4

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Growth rate	Δ0.4	Δ0.4	0.8	2.2	0.8	0.8	2.3

Notes: 1. The above figures are on an expenditure base.

2. The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.

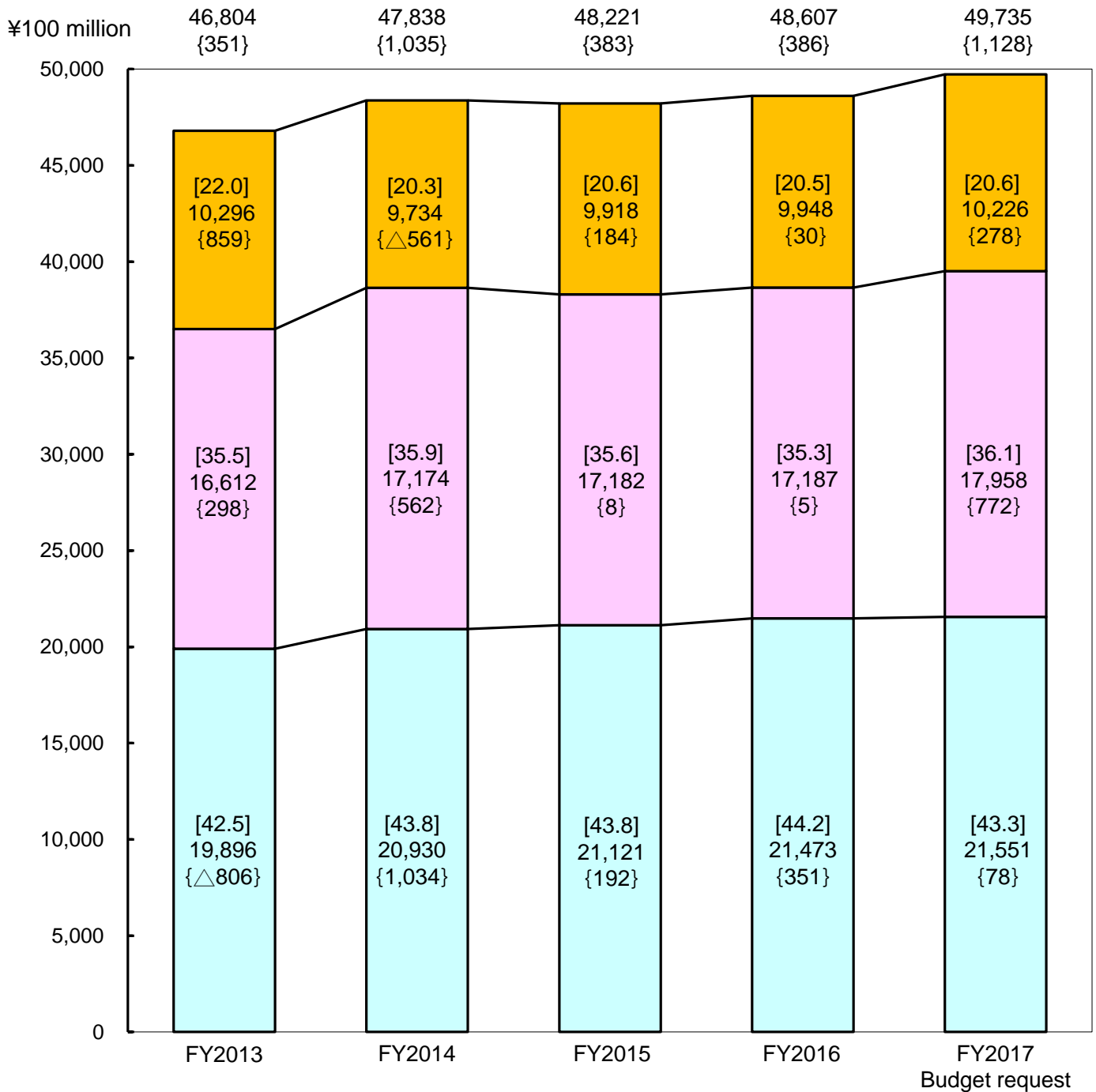
Changes in the three categories

[]: Share of expenses budget (%)
 { }: YoY change

General Material Expenses

Obligation Outlay Expenses

Personnel Provisions Expenses



- Notes: 1. The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.
 2. General material expenses of FY2013 include expenses to be transferred to the Special Account for the Reconstruction from the Great East Japan Earthquake (¥68.9 billion).

Breakdown by organization

(Unit: ¥100 million, %)

Classification	FY2016 Budget	FY2017 Budget request	Change	Growth rate
Defense-related expenses	48,607	49,735	1,128	2.3
Ministry of Defense	48,607	49,735	1,128	2.3
(Ministry of Defense Head Office)	47,152	48,027	876	1.9
GSDF	17,489	17,724	235	1.3
MSDF	11,954	12,166	211	1.8
ASDF	11,196	11,570	374	3.3
Subtotal	40,640	41,460	820	2.0
Internal Bureau	4,941	5,002	61	1.2
Joint Staff Office	407	418	11	2.7
Defense Intelligence Headquarters	702	710	8	1.2
National Defense Academy	159	164	5	3.1
National Defense Medical College	246	241	△4	△1.8
National Institute for Defense Studies	53	26	△26	△49.9
Inspector General's Office of Legal Compliance	5	6	1	14.9
Subtotal	6,512	6,567	56	0.9
(Regional Defense Bureaus)	193	204	11	5.9
(Acquisition, Technology and Logistics Agency)	1,263	1,504	241	19.0

Note: The figures do not include SACO-related expenses, U.S. Forces realignment-related expenses (the portion allocated mitigating the impact on local communities) and expenses for the introduction of new dedicated government aircraft.

Promotion of base measures, etc.

(Unit: ¥100 million, %)

Classification	FY2016 Budget	FY2016 Budget request	YoY Change	Growth rate	Remarks
Promotion of base measures, etc.	< 4,536 > 4,509	< 4,636 > 4,551	< 100 > 42	< 2.2 > 0.9	
(1) Expenses related to measures for local communities	< 1,227 > 1,192	< 1,288 > 1,241	< 62 > 49	< 5.0 > 4.1	
Residential sound insulation	< 375 > 376	< 406 > 376	< 30 > 0	< 8.1 > 0.1	Subsidies for sound insulation work near air bases
Improvement of surrounding environment	< 852 > 816	< 883 > 865	< 31 > 48	< 3.7 > 5.9	Subsidies for living environment and facilities (river and road reconstruction, sound proofing systems in schools, improvements to public welfare facilities, etc.)
(2) Cost-sharing for the stationing of USFJ	< 1,933 > 1,920	< 1,962 > 1,946	< 30 > 26	< 1.5 > 1.3	
Special Measures Agreement	1,450	1,468	18	1.2	
Labor cost	1,194	1,213	19	1.6	Cost of wages of USFJ employees
Utilities	249	247	△ 2	△ 1.0	Cost of utilities used at USFJ facilities
Training relocation cost	7	8	1	15.2	Expenses related to U.S. field-carrier landing practice on Iwo Jima
Facilities improvement	< 218 > 206	< 222 > 206	< 4 > —	< 1.8 > —	Improvement of USFJ facilities (barracks, family housing, etc.)
Measures for USFJ employees	264	272	8	3.0	Expenses related to social insurance premiums by the employer
(3) Facility rentals, compensation expenses, etc.	< 1,376 > 1,397	< 1,385 > 1,364	< 9 > △ 33	< 0.6 > △ 2.3	Rental cost of land used for defense facility and compensation for loss of fisher's income, etc.

Note: The above figures are on an expenditure base (General Material Expenses + Obligatory Outlay Expenses), and figures in < > indicate a contract base amount.

Reference

Overview of FY2016 Supplementary Budget (2nd draft)

MOD allocation amount.....¥21.7 billion (¥46.1 billion)

* The above figure in the parenthesis indicates the total amount of project expenses, which represents the expenditure budget plus future obligations concerning new contracts. The same shall apply hereinafter.

Ensure the people's life and peace of mind

Secure expenses necessary for quick strengthening of the SDF's stable operational posture, including enhancing the warning and surveillance posture, the rapid deployment and response capabilities, and the response capability against ballistic missiles, as the SDF's activities have been increasing with its response to the increasingly severe security environment and various disasters

(1) Enhancement of the warning and surveillance posture (¥11.7 billion) (¥32.1 billion)

- Acquisition of P-1 and SH-60K
- Modernization of F-15J / DJ
- Acquisition of aircraft parts and maintenance equipment, and vessel parts
- Acquisition of intelligence gathering equipment



(2) Enhance rapid deployment and response capabilities...¥7.4 billion (¥7.9 billion)

- Acquisition of C-2
- Acquisition of CH-47J A and upgrade of CH-47J
- Acquisition of operational infrastructure to be used at the time of deployment



(3) Respond to ballistic missile attacks ... ¥2.6 billion (¥6.1 billion)

- Acquisition of PAC-3 missiles
- Acquisition of security equipment and personal protection equipment to be used at the time of the deployment of PAC-3 units



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Defense Programs and Budget of Japan

Overview of FY2017 Budget Request

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