

Section 3

Outline of the MTDP (FY2019–FY2023)

1 Program Guidelines

The current MTDP formulated in December 2018 indicates that the SDF will endeavor to build up defense capability based on the five basic policies, in accordance with the NDPG.

Specifically, the SDF will strengthen its structure and capability based on the “Priorities in Strengthening Defense Capabilities” and “Structure of the SDF” of the NDPG.

**Q See** Fig. II-3-2-3 (Priorities in Strengthening Capabilities Necessary for Cross-domain Operations)  
 Fig. II-3-3-1 (Five Basic Policies of the MTDP)  
 Fig. II-3-3-2 (Projects pertaining to the Priorities in Strengthening Capabilities Essential for Cross-domain Operations)

Fig. II-3-3-1 Five Basic Policies of the MTDP

Five Basic Policies of the MTDP in accordance with the NDPG		
1	Acquiring and Strengthening Capabilities Essential for Realizing Cross-domain Operations	<ul style="list-style-type: none"> <li>The SDF will acquire and strengthen capabilities in new domains, which are space, cyberspace and electromagnetic spectrum.</li> <li>The SDF will strengthen and protect command, control, communications and information (C4I) capabilities that effectively connect capabilities in all domains including the new ones.</li> <li>The SDF will enhance capabilities in traditional domains, such as capabilities in maritime and air domains, stand-off defense capability, comprehensive air and missile defense capability and maneuver and deployment capability.</li> <li>The SDF will enhance sustainability and resiliency of defense capability including logistics support.</li> </ul>
2	Improving the Efficiency of Acquisition of Equipment and Reinforcing the Technology Base	<ul style="list-style-type: none"> <li>In procuring equipment, by properly combining the introduction of new, high performance equipment, with life extension and improvement of existing equipment, the MOD/SDF will efficiently secure defense capability in necessary and sufficient “quality” and “quantity.”</li> <li>The MOD/SDF will strive to reduce the life-cycle costs and improve cost-effectiveness by reinforcing project management.</li> <li>The MOD/SDF will make focused investments through selection and concentration in cutting-edge technologies. The MOD/SDF will also dramatically shorten R&amp;D timelines by streamlining its processes and procedures.</li> </ul>
3	Reinforcing Human Resource Base	<ul style="list-style-type: none"> <li>The MOD/SDF will comprehensively promote various measures to reinforce human resource base such as securing diverse and high-quality talents including diversifying applicant pool, promoting women’s participation and leveraging SDF Reserve Personnel, improving living and work environment, promoting work style reforms, and improving treatment, etc.</li> </ul>
4	Strengthening the Japan-U.S. Alliance and Security Cooperation	<ul style="list-style-type: none"> <li>Japan will further promote a variety of cooperative activities and consultations with the United States, in a wide range of areas under “Guidelines for Japan-U.S. Defense Cooperation.” Japan will also actively facilitate measures for the smooth and effective stationing of U.S. forces in Japan.</li> <li>In line with the vision of free and open Indo-Pacific, to strategically promote multifaceted and multilayered security cooperation, Japan will promote defense cooperation and exchanges which include bilateral training and exercises, defense equipment and technology cooperation, capacity building assistance, and interchanges among military branches.</li> </ul>
5	Greater Efficiency and Streamlining in the Build-Up of Defense Capability	<ul style="list-style-type: none"> <li>With respect to hedging against invasion scenarios such as amphibious landing employing large-scale ground forces, the SDF will retain forces only enough to maintain and carry on the minimum necessary expertise and skills, by achieving efficiency and rationalization.</li> <li>Considering increasingly severe fiscal conditions and the importance of other budgets related to people’s daily life, the MOD/SDF will work to achieve greater efficiency and streamlining in defense force development while harmonizing with other policies and measures of the Government.</li> </ul>

Fig. II-3-3-2 Projects pertaining to the Priorities in Strengthening Capabilities Essential for Cross-domain Operations

Category		Main Programs
Space, cyber and electromagnetic domains	Space domain	<ul style="list-style-type: none"> <li>Establishment of Space Operations Squadron</li> <li>Development of the Space Situational Awareness System</li> </ul>
	Cyber domain	<ul style="list-style-type: none"> <li>Enhancement of structure for Cyber Defense Group, etc.</li> <li>Improvement of the survivability of SDF’s command and communications systems and networks</li> </ul>
	Electromagnetic domain	<ul style="list-style-type: none"> <li>Establishment of new specialized units in internal subdivisions and the Joint Staff Office</li> <li>Installation of electronic data collectors and ground radio wave measuring apparatuses</li> </ul>
Traditional domains	Maritime and air domains	<ul style="list-style-type: none"> <li>Procurement of new types of destroyers (FFM), submarines, patrol vessels, fixed-wing patrol aircraft (P-1), patrol helicopters (SH-60K, SH-60K upgraded capability), and carrier-borne unmanned aerial vehicles</li> <li>Increase of F-35A, introduction of F-35B, refurbishment of Izumo-type destroyers, and enhancement of abilities of F-15</li> </ul>
	Stand-off defense capability	<ul style="list-style-type: none"> <li>Procurement of stand-off missiles (JSM, JASSM, and LRASM)</li> <li>Promotion of R&amp;D concerning hyper velocity gliding projectiles intended for the defense of remote islands</li> </ul>
	Comprehensive air and missile defense capability	<ul style="list-style-type: none"> <li>Enhancement of abilities of Aegis destroyers and Patriot surface-to-air guided missiles</li> </ul>
	Maneuver and deployment capability	<ul style="list-style-type: none"> <li>Procurement of transport aircraft (C-2) and transport helicopters (CH-47JA), and introduction of new utility helicopters</li> <li>Promotion of efforts to obtain cooperation from related local governments for persistent deployment of GSDF Osprey aircraft (V-22)</li> </ul>
Strengthening sustainability and resiliency	Securing continuous operations	<ul style="list-style-type: none"> <li>Preferential procurement of anti-aircraft missiles, torpedoes, stand-off firepower, and interceptor missiles for ballistic missile defense</li> <li>Promotion of efforts for dispersion, recovery from damage, and substitution of infrastructure and other foundations for the SDF operations</li> </ul>
	Ensuring the operational availability of equipment	<ul style="list-style-type: none"> <li>Securing of a sufficient budget for maintenance of equipment</li> <li>Expansion of PBL (Performance Based Logistics) and other umbrella contracts</li> </ul>

## 2 Quantities of Major Procurement

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



Fig. II-3-3-3 (Annex Table of the MTDP (FY2019–FY2023) and Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019–FY2023))

Fig. II-3-3-3

Annex Table of the MTDP (FY2019–FY2023) and Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019–FY2023)

Annex Table of the MTDP (FY2019–FY2023)			Unit Prices of the Equipment Items Listed on the Annex Table of the MTDP (FY2019–FY2023)
Service	Equipment	Quantity	Unit prices (*1)
GSDF	Mobile Combat Vehicles	134	Approx. 0.8 billion yen
	Armored Vehicles	29	(*2)
	New Utility Helicopters	34	Approx. 1.8 billion yen
	Transport Helicopters (CH-47JA)	3	Approx. 8.9 billion yen
	Surface-to-Ship Guided Missiles	3 companies (*3)	Approx. 5.6 billion yen (*4)
	Mid-Range Surface-to-Air Guided Missiles	5 companies	Approx. 14.3 billion yen (*4)
	Land-based Aegis Systems (Aegis Ashore)	2	Approx. 122.4 billion yen
	Tanks	30	Approx. 1.5 billion yen
	Howitzers (excluding mortars)	40	Approx. 0.7 billion yen
MSDF	Destroyers	10	Approx. 47.6 billion yen
	Submarines	5	Approx. 64.7 billion yen
	Patrol Vessels	4	(*2)
	Other Ships	4	(*5)
	Total (Tonnage)	23 (Approx. 66,000 tons)	—
	Fixed-Wing Patrol Aircraft (P-1)	12	Approx. 22.1 billion yen
	Patrol Helicopters (SH-60K/K (Upgraded Capability))	13	Approx. 7.3 billion yen (*2)
	Ship-Borne Unmanned Aerial Vehicles	3	(*2)
	Minesweeping and Transport Helicopters (MCH-101)	1	Approx. 7.3 billion yen
ASDF	Airborne Early Warning (Control) Aircraft (E-2D)	9	Approx. 26.2 billion yen
	Fighters (F-35A)	45	Approx. 11.6 billion yen
	Fighter Upgrade (F-15)	20	Approx. 3.5 billion yen
	Aerial Refueling/Transport Aircraft (KC-46A)	4	Approx. 24.9 billion yen
	Transport Aircraft (C-2)	5	Approx. 22.3 billion yen
	Upgrade of PATRIOT Surface-to-Air Guided Missiles (PAC-3 MSE)	4 groups (16 fire squadrons)	Approx. 4.5 billion yen (*6)
	Unmanned Aerial Vehicles (Global Hawk)	1	Approx. 17.3 billion yen (*7)

1. Japan will basically pursue the establishment of 75 Patrol Helicopters and 20 Ship-borne UAVs at the completion of the “NDPG for FY2019 and beyond”, but those exact numbers will be considered during the period of the “MTDP (FY2019–FY2023).”

2. 18 aircraft out of 45 aircraft of Fighters (F-35A) would have STOVLs.

\*1 Prices are on a contract basis (prices for FY2018) and are the MOD's estimates as of the time of establishing the MTDP.

\*2 Information on equipment items under development and equipment items, etc. subject to model selection (including STOVL fighter aircraft) is not disclosed, as information disclosure may affect the proper acquisition of these equipment items in the future.

\*3 The quantity of surface-to-ship guided missiles includes that of improved ones under development.

\*4 Regarding surface-to-ship guided missiles and mid-range surface-to-air guided missiles, the maximum unit prices are indicated, as unit prices vary by acquisition year due to differences in components.

\*5 Other ships are minesweeping vessels, ocean surveillance ships, and oceanographic research ships, and their unit prices are approximately 16.2 billion yen, 22.1 billion yen, and 20.3 billion yen, respectively.

\*6 Assembly cost for 16 fire squadrons is scheduled to be allocated during the period of the MTDP. The unit price above is for one fire squadron.

\*7 Assembly cost for one Global Hawk is scheduled to be allocated during the period of the MTDP.

## 3 Expenditures

The expenditure target for the implementation of the defense capability build-up described in the MTDP (FY2019–FY2023) amount to approximately ¥27.47 trillion in FY2018 prices.

For the duration of the MTDP (FY2019–FY2023), in harmony with other measures taken by the Government, substantive funds will be secured by means of thoroughgoing greater efficiency


and streamlining in defense force development, suspending the use of equipment whose importance has decreased, reviewing or discontinuing projects of low cost-effectiveness, optimizing equipment procurement through cost management/suppression and long-term contracts and securing other revenue. The annual defense budgets target for the implementation of this MTDP is expected to be around approximately ¥25.5 trillion over the five years.

Concerning the budgetary process for each fiscal year, in order to adapt to increasingly rapid changes in the security environment, Japan must strengthen its defense capability at speeds that are different from the past. Moreover, to achieve rapid procurement of defense equipment, Japan must pursue flexible and swift project management, and the budgetary process for each fiscal year which will be conducted taking into account the economic and fiscal conditions among other budgets.

The amount of expenses based on contracts (material expenses) to be newly concluded to implement this MTDP will be allocated within the ceiling of approximately ¥17.17 trillion in FY2018 prices (excluding the amount corresponding to payments outside of the program period for contracts that contribute to improving project efficiency such as maintenance), and the future obligation shall be managed appropriately.

Column

Acquisition of the F-35B Fighter Aircraft

Model	F-35B (Lockheed Martin)
	
[Courtesy of F-35 Lightning II Joint Program Office]	
Fuselage dimensions	Length: approx. 15.5 m; span: approx. 10.5 m; height: approx. 4.5 m
Seat type	Single seat (one pilot)
Speed	Maximum of Mach 1.6
Take-off distance	168 m (550 ft)
Adopting military services	U.S. Marines Corp., U.K. Royal Navy and Air Force, Italian Navy and Air Force, Singapore Armed Force
Starting year of operation	2015

The neighboring countries of Japan are making remarkable progress in the modernization of the air forces, for example by deploying the so-called fifth generation fighter aircraft and the latest models of the fourth generation aircraft. In order to secure the defense of Japan in this situation, it is extremely important for the SDF to develop a system that enables flexible operations, including flying aircraft from more airfields, so that air superiority can be constantly secured through the use of high-performance fighter aircraft.

However, out of the 45 air bases and other airfields (including those that are co-used with civilian aircraft; excluding heliports) across Japan that are used by the GSDF, MSDF and ASDF, only 20 have a runway with a length of 2,400 meters, which is usually used by fighter aircraft possessed by the ASDF. In particular, in the Pacific Ocean, there is only one such air base, the one on Iwo To, which means that the SDF has limited operational infrastructure in the region.

In this respect, generally speaking, fighter aircraft capable of Short Take-off and Vertical Landing (STOVL) are expected to be able to take off from a runway with a length of around hundred meters. In theory, such fighter aircraft can take off from and land at almost all air bases and airfields (45 locations)

used by the SDF.

In light of the limited number of runways usable for conventional fighter aircraft in a small country like Japan, the SDF has decided to introduce STOVL aircraft in order to continuously secure air superiority under the Mid-Term Defense Program that was formulated in 2018.

Accordingly, in 2019, the SDF made a model selection and decided to introduce the F-35B fighter, which, like the F-35A fighter, is the most advanced aircraft that possesses high capabilities in terms of networking and stealth performance. During the period of the current Mid-Term Defense Program (from 2019 to 2023), the SDF is scheduled to acquire a total of 18 F-35B fighters.

In addition, in order to deal with the new security environment and to ensure a full-fledged posture to defend Japan's sea and airspace, which includes part of the vast Pacific Ocean, while securing the safety of personnel, the SDF will refurbish the Izumo-class destroyers, which are multi-function destroyers, so that the F-35B can be operated from them when necessary.

The SDF will secure the defense of Japan by steadily introducing the F-35B fighter and promoting collaboration with the Izumo-class destroyers.