

(Provisional Translation)

Medium Term Defense Program (FY 2019 - FY 2023)

December 18, 2018

I. Program Guidelines

In the defense program for FY 2019 - FY 2023, with accordance to “National Defense Program Guidelines for FY 2019 and beyond” (approved by the National Security Council and Cabinet on December 18, 2018), Japan will significantly strengthen defense capability to build a truly effective defense capability, “Multi-Domain Defense Force,” which: organically fuses capabilities in all domains including space, cyberspace and electromagnetic spectrum; and is capable of sustained conduct of flexible and strategic activities during all phases from peacetime to armed contingencies. The development of “Multi-Domain Defense Force” will be done while honing the attributes of “Dynamic Joint Defense Force” under the “National Defense Program Guidelines for FY 2014 and beyond” (approved by the National Security Council and the Cabinet on December 17, 2013).

In order to adapt to increasingly rapid changes in security environment, Japan will strengthen its defense capability at speeds that are fundamentally different from the past. In view of aging population with declining birth rate and severe fiscal situation, Japan will strengthen its defense capability effectively by allocating resources flexibly and intensively without adhering to existing budget and human resource allocation. Furthermore, SDF will further promote joint-ness of the Ground, Maritime and Air Self-Defense Forces in all areas, avoid stove-piped approach and optimize their organizations and equipment.

Given the guiding thoughts above, SDF will effectively and efficiently build,

maintain and operate defense capability based on the following program guidelines:

1. In order to realize cross-domain operations, SDF will acquire and strengthen capabilities in new domains, which are space, cyberspace and electromagnetic spectrum by focusing resources and leveraging Japan's superb science and technology, and strengthen and protect command, control, communications and information (C4I) capabilities that effectively connect capabilities in all domains including the new ones. In addition, SDF will enhance capabilities in maritime and air domains, stand-off defense capability, comprehensive air and missile defense capability and maneuver and deployment capability to effectively counter attacks by aircraft, ships and missiles during cross-domain operations in close combination with capabilities in space, cyber and electromagnetic domains. Furthermore, to be able to sustain a range of requisite activities at all stages from peacetime to armed contingencies, sustainability and resiliency of defense capability including logistics support will be enhanced.

2. In procuring equipment, by properly combining the introduction of new, high-performance equipment, with life extension and improvement of existing equipment, MOD/SDF will efficiently secure defense capability in necessary and sufficient "quality" and "quantity". In this regard, MOD/SDF will strengthen its project management throughout its equipment life-cycle, including during its research and development activities, and reduce the life-cycle costs to improve cost-effectiveness. Moreover, MOD/SDF will make focused investments through selection and concentration in cutting-edge technologies. MOD/SDF will also dramatically shorten research and development (R&D) timelines by streamlining its processes and procedures.

3. In the face of rapidly shrinking and aging population with declining birth rates, to ensure SDF's strength, to strive to secure human resources for SDF personnel and to improve their ability and morale, who are the core element of defense capability, 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 reserve personnel, improving living and work environment, promoting work style reforms, and improving treatment.

4. In order to maintain and strengthen the commitment of the United States (U.S.) to Japan and the Indo-Pacific region and to secure Japan's security, and based on the premise that Japan will strengthen its own capabilities, Japan will further promote a variety of cooperative activities and consultations with the U.S., in a wide range of areas under "Guidelines for Japan-U.S. Defense Cooperation". Japan will also actively facilitate measures for the smooth and effective stationing of U.S. forces in Japan.

In line with the vision of free and open Indo-Pacific, to strategically promote multifaceted and multilayered security cooperation, Japan will actively leverage its defense capability to promote defense cooperation and exchanges which include joint training and exercises, defense equipment and technology cooperation, capacity building assistance, and interchanges among military branches.

5. With respect to hedging against invasion scenarios such as amphibious landing employing large-scale ground forces, which were assumed primarily during the Cold War period, SDF will retain forces only enough to maintain and carry on the minimum necessary expertise and skills with which to adapt to changes in situation in the future, by achieving efficiency and rationalization.

6. Considering increasingly severe fiscal conditions and importance of other budgets related to people's daily life, MOD/SDF will work to achieve greater efficiency and streamlining in defense force development while harmonizing with other policies and measures of the Government.

II. Reorganization of the Major SDF Units

1. In order to build a structure that is capable of realizing cross-domain operations including new domains, which are space, cyberspace and electromagnetic spectrum, SDF will strengthen the Joint Staff's posture designed for effective SDF operations and for new domains, thereby enabling swift exercise of SDF's capabilities. For the future framework for joint operations, SDF will take necessary measures after considering how to conduct the operation of organizations in which the functions in the new domains are operated unitarily, and come to conclusions after considering how the integrated structure should be during steady-state to appropriately execute instructions from the Minister based on the posture of the strengthened Joint Staff. SDF will also work to flexibly leverage personnel of each SDF service through such efforts as building posture for force protection and damage recovery with an eye on mutual cooperation among SDF services.

SDF will establish 1 squadron of ASDF space domain mission unit in order to conduct persistent monitoring of situations in space, and to ensure superiority in use of space at all stages from peacetime to armed contingencies.

SDF will establish 1 squadron of cyber defense unit as joint unit in order to fundamentally strengthen cyber defense capabilities, including capability to disrupt, in the event of attack against Japan, opponent's use of cyberspace for the attack as well as to conduct persistent monitoring of SDF's information and communications networks.

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

In order to provide persistent nation-wide protection on a steady-state basis and

to be able to simultaneously deal with multiple, complex airborne threats, GSDF will establish 2 squadrons of ballistic missile defense (BMD) units. In addition, in order to operate units more efficiently including command and control in accordance with the enhancement of SDF's ballistic missile response capabilities, ASDF will reorganize surface-to-air guided missile units from 6 fire groups to 4 groups while maintaining 24 fire squadrons.

At all stages from peacetime to armed contingencies, SDF will establish 1 group of maritime transportation unit as Joint Unit that allows SDF units to swiftly maneuver and deploy in joint operations.

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

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

From the perspective of enabling swift and flexible operations, while thoroughly facilitating efficiency and rationalizing preparations for invasion, such as the landing of large-scale ground forces, GSDF will steadily implement programs towards successive formation of units equipped with mobile combat vehicles and disuse of tanks deployed in basic operational units stationed in locations other than Hokkaido and Kyushu. In addition, GSDF will steadily carry out programs that concentrate howitzers deployed in basic operational units stationed in locations other than Hokkaido into newly organized field artillery units under the direct command of the respective regional armies. Furthermore, GSDF will reduce its combat helicopter units under the direct command of the respective regional armies and consider the review of their deployment to operate them effectively and efficiently.

3. In order to provide for defense in the waters around Japan and security of maritime traffic through effective prosecution of persistent ISR, anti-submarine operations and mine countermeasure operations, to be able to effectively engage in security cooperation with other countries, MSDF will maintain 4 groups mainly consisting of 1 helicopter destroyer (DDH) and 2 Aegis-equipped destroyers (DDG), and maintain 2 groups consisting of new type of destroyers (FFM) with improved multi-mission capabilities and minesweeping vessels. MSDF will newly establish surface units composed of these destroyer units and minesweeper units. In addition, MSDF will establish patrol vessel units to enable enhanced steady-state ISR in the waters around Japan. Furthermore, by introducing a test submarine, which the type will be changed from an existing submarine, MSDF will work to achieve greater efficiency in submarine operations and accelerate capability improvement, thereby enhancing persistent ISR posture. In order to effectively conduct underwater ISR and patrols and defense in the waters around Japan, MSDF will continue to take measures necessary to increase the number of submarines.

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

ASDF will disband 1 squadron of tactical reconnaissance unit with the retirement of its reconnaissance aircraft (RF-4), and will establish 1 squadron of aerial refueling/transport units to enhance its aerial refueling/transport function.

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

5. The total number of authorized GSDF personnel at the end of FY 2023 will be approximately 159,000, with approximately 151,000 being active-duty personnel, and approximately 8,000 being reserve-ready personnel. The authorized number of active-duty personnel of the MSDF and ASDF through FY 2023 will be approximately at the same levels as at the end of FY 2018.

During the period of the program, SDF will promote initiatives to optimize organizations and missions such as reviewing the existing organizations and missions whose importance has declined and assigning personnel mainly to new domains, which are space, cyberspace and electromagnetic spectrum.

III. Major Programs regarding SDF's Capabilities

1. Priorities in Strengthening Capabilities Necessary for Cross-Domain Operations

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

Domains

(A) Capabilities in Space Domain

In order to secure the stable use of space, SDF will build a structure to conduct persistent space monitoring under an appropriate role-sharing with related ministries and agencies by such means as newly establishing space domain mission unit and establishing a space situational awareness (SSA) system and will also newly introduce space-based optical telescopes and SSA laser ranging devices.

In order to further improve various capabilities that leverage space domain including information-gathering, communication and positioning capabilities, SDF will continue to enhance information gathering capabilities through the use of various space satellites equipped with diverse sensors, and strengthen C4I capabilities by continuing to develop a sophisticated X-Band satellite communications system. SDF will also strive to secure redundancy by such means as receiving multiple positioning satellite signals including those of Quasi-Zenith Satellite System (QZSS) and utilizing information gathering satellites (IGS) and commercial satellites including micro ones. Additionally, in order to use these capabilities continuously, SDF will conduct necessary study and research, and newly introduce training devices to study and train responses to the vulnerabilities of Japanese satellites, and devices to grasp the state of electromagnetic interference against Japanese satellites. By this strengthening of the structure for grasping the situation, SDF will build the capability to disrupt C4I of opponents in collaboration with the electromagnetic domain.

In this regard, in addition to efforts to establish new job categories and enhance education dedicated to the space domain, SDF will actively leverage civilian technologies and promote to enhance cooperation including the development of human resources, with relevant agencies including the Japan Aerospace Exploration Agency (JAXA) and with the U.S. and other relevant countries, given that cutting-edge technology and knowhow have been accumulated in these organizations.

(B) Capabilities in Cyber Domain

SDF aims to persistently ensure sufficient security against cyber attack and acquire capability to disrupt, opponent's use of cyberspace in the event of attack against Japan. With consideration to enhancing joint functions and efficient resource allocations, SDF will establish the necessary environment by such measures as expanding the structure of cyber defense squadron and other units, enhancing the resiliency of the C4 systems of SDF, strengthening capabilities of information gathering, research and analysis, and developing a practical training environment that can test SDF's cyber defense capability. In addition, SDF will strive to keep abreast of the latest information including cyber-related risks, counter measures and technological trends, through cooperation with the private sector, and strategic talks, joint exercises and other opportunities with the ally and other parties.

As the methods of cyber attack are becoming increasingly sophisticated and complicated, securing personnel with expertise on a continuing basis is essential. SDF plans to develop personnel with strong cyber security expertise, through efforts such as improving the in-house curriculum for specialized education, increasing learning opportunities at institutions of higher education at home and abroad, and conducting personnel management that cultivates expertise. In addition, SDF will strengthen the cyber defense capability by utilizing superior outside expertise.

In order to enable a comprehensive response through a whole-of-government approach in cyber domain, MOD/SDF seeks to enhance close coordination with relevant ministries and agencies, etc. by providing knowledge and MOD/SDF personnel on a steady-state basis, and enhance training and exercises.

(C) Capabilities in the Electromagnetic Domain

MOD/SDF will newly establish specialized sections in the internal bureau and

the Joint Staff respectively in order to enhance the function to make policies pertaining to effective and efficient use of electromagnetic spectrum in MOD/SDF as well as to improve coordination with other ministries and agencies.

In order to enhance information gathering and analysis capabilities concerning electromagnetic spectrum and develop an information sharing posture, SDF will promote the procurement of radio wave information gathering aircraft and ground-based SIGINT sensor, the upgrade of the Japan Aerospace Defense Ground Environment (JADGE) system, the connection of each SDF service's systems including the Defense Information Infrastructure (DII) and the improvement of each SDF service's data links.

In order to neutralize the radar and communications of opponent attempting to invade Japan, SDF will proceed with the procurement of fighters (F-35A) and network electronic warfare devices, and the upgrade of fighters (F-15) and utility aircraft (EP-3 and UP-3D). SDF will also swiftly proceed with studies and R&D aimed at the procurement of standoff electronic warfare aircraft, high-output electronic warfare equipment, high-output microwave equipment and electromagnetic pulse (EMP) ammunition.

(2) Enhancing Capabilities in Traditional Domains

(A) Capabilities in the Maritime and Air Domains

(i) Strengthening a Posture of Persistent ISR

In order to strengthen the posture to conduct persistent ISR in broad areas at sea and in the air around Japan including vast airspace on the Pacific side, and to detect any signs of significant development at an early stage, SDF will procure new type of destroyers with enhanced capabilities to respond to a wide range of missions (FFM), submarines, patrol vessels, fixed-wing patrol aircraft (P-1), patrol helicopters (SH-60K/K (upgraded version)) and ship-borne UAVs, conduct service-extension work on existing destroyers, submarines, fixed-wing patrol aircraft (P-3C) and patrol helicopters

(SH-60J and SH-60K) and upgrade the capabilities of fixed-wing patrol aircraft (P-1). In this respect, SDF will strengthen the posture of persistent ISR through increasing the number of the operating days by introducing rational shifts of multiple crews and coordination with patrol vessels to be newly introduced for the new type of destroyers (FFM), and through increasing the opportunities for operation of the submarine fleet on a steady-state basis by introducing the test submarine, which the type has been changed from existing submarines. In addition, SDF will maintain a fully-prepared ISR posture through procuring airborne early warning aircraft (E-2D) and a long-endurance UAV (Global Hawk), upgrading the capabilities of the existing airborne warning and control systems (E-767), development of a new fixed air defense radar, establishing 1 AEW wing as part of air warning and control units as stated in II4, preparing an operating base for mobile air defense radars on the islands on the Pacific side and strengthening over-the-horizon radar capabilities.

(ii) Obtaining and Maintaining Air Superiority

SDF will strive for the comprehensive enhancement of air defense capability in airspace around Japan including vast air space on the Pacific side.

SDF will proceed replacing fighters that are not suitable for modernization (F-15) by increasing the number of fighters (F-35A) and will newly introduce fighters that are capable of short take-off and vertical landing (hereinafter referred to as “STOVL aircraft”) to enhance the flexibility of fighter operations, as the number of air bases that allow for conventional take-off and landing of fighters is limited. In this regard, SDF will refurbish MSDF’s multi-function helicopter carrier destroyers (Izumo class) after studying operation of STOVL aircraft so that the operation where necessary will be possible such as response to air attacks in time of emergency, ISR, training and disaster response, in order to further improve flexibility in fighter operations while ensuring safety of SDF personnel and to improve air operation capability particularly on the Pacific side of Japan, where number of air bases is limited despite its vast airspace.

These destroyers shall continue to engage as multi-function destroyers in a wide range of missions after refurbishment, such as the defense of Japan and the response to large-scale disasters. There will be no change in the existing Government opinion concerning equipment that cannot be possessed under the Constitution. In addition, SDF will upgrade the capabilities of modernized fighter aircraft (F-15) including the enhancement of electronic warfare capabilities, mounting stand-off missiles and increasing the number of mounted missiles. Furthermore, SDF will upgrade the capabilities of fighter aircraft (F-2) including the enhancement of network functions.

With regard to future fighter, SDF will procure new fighters that are capable of playing a central role in future networked warfare before the retirement of the fighter aircraft (F-2). MOD/SDF will promote necessary research and launch a Japan-led development project at an early timing with the possibility of international collaboration in sight.

Along with continuing to procure middle-range surface-to-air guided missiles, SDF will continue to improve its surface-to-air guided missile PATRIOT systems by equipping them with new advanced interceptor missiles (PAC-3 MSE) that can be used both for response to cruise missiles and aircraft and for ballistic missile defense (BMD). In addition, SDF will continue to procure aerial refueling/transport aircraft (KC-46A) and rescue helicopters (UH-60J).

(iii) Obtaining and Maintaining Maritime Superiority

In defense of the seas surrounding Japan and to ensure the security of maritime traffic by effectively conducting various activities including holding persistent ISR, anti-submarine operations and mine countermeasure operations, SDF will procure equipment such as a new type of destroyers (FFM), conduct service-extension activities on equipment such as existing destroyers, and enhance the capabilities of equipment such as fixed wing patrol aircraft (P-1) as stated in (i), and will procure

minesweeping/transport helicopters (MCH-101). In addition, SDF will continue to procure Mine Sweeper Ocean (MSO) vessels and amphibious rescue aircraft (US-2), and will establish the structure for enhancing tactical development and education and training capabilities. Furthermore, SDF will continue to procure surface-to-ship guided missiles and will introduce new surface-to-ship guided missiles and air-to-ship guided missiles with further extended ranges. In addition, SDF will take necessary measures after considering the introduction of long-endurance UAVs to strengthen surveillance capabilities in the water including on the vast Pacific side. Moreover, SDF will strive to steadily enhance C4I capabilities and will deploy unmanned underwater vehicles (UUV) and proceed with R&D aiming at further enhancement of capabilities to utilize them for oceanic observation and ISR.

(B) Stand-off Defense Capability

In order to deal with ships and landing forces attempting to invade Japan while ensuring safety of SDF personnel, SDF will procure stand-off missiles (JSM, JASSM and LRASM), which are capable of responding from the outside of their threat envelopes, and will proceed with R&D on HVGP intended for the defense of remote islands, new surface-to-ship missiles intended for the defense of remote islands and hypersonic weapons. In addition, in order to appropriately leverage advances in military technology, MOD/SDF will swiftly and flexibly strengthen stand-off defense capability through measures such as comprehensive R&D of related technology.

(C) Comprehensive Air and Missile Defense Capability

In order to effectively and efficiently counter increasingly diverse and complex airborne threats such as ballistic and cruise missiles and aircraft by optimum means and minimize damage, SDF will establish a structure with which to conduct integrated operation of various equipment pieces, those for missile defense as well as air defense equipment that each SDF service has separately used, thereby providing persistent nation-wide protection on a steady-state basis and to be able to simultaneously deal

with multiple, complex airborne threats. In this regard, SDF will strive to standardize and streamline the means for interception that each SDF service possesses including their maintenance and replenishment systems.

For reinforcing its multi-layered and persistent defense posture for the entire territory of Japan against ballistic missile attacks, SDF will procure its land-based Aegis system (Aegis Ashore), continue to upgrade the capabilities of its existing Aegis-equipped destroyers (DDG) and surface-to-air guided missile PATRIOT system as stated in (A) (ii). SDF will also conduct bilateral training and exercises to enhance the effectiveness of the Japan-U.S. bilateral BMD response posture.

In order to effectively counter missile attacks, SDF will procure its interceptor missiles for BMD (SM-3 block IB and block IIA), interceptor missiles with upgraded capabilities (PAC-3MSE), long-range ship-to-air missiles (SM-6) and mid-range ground-to-air guided missiles.

In order to reinforce the detecting and tracking capabilities for missiles and to unitarily command and control the various equipment that each SDF service possesses, SDF will proceed with initiatives such as upgrading its Japan Aerospace Defense Ground Environment (JADGE) and procuring its air defense command and control system (ADCCS), developing its new fixed air defense radar, adding cooperative engagement capability (CEC) to its E-2D, R&D on a network system that enables engage-on-remote launch of weapons by destroyers (DD) (FC network), and research on satellite-mounted dual-wave-length infrared sensors and will also study ways to counter future airborne threats.

Based on basic role and mission sharing between Japan and the U.S., in order to strengthen the deterrent of the Japan-U.S. Alliance as a whole, Japan will continue to study a potential form of response capability to address the means for missile launch

and related facilities and will take necessary measures.

In preparation for an attack by guerrilla or special operations forces concurrent with a missile attack, SDF will continue to procure a variety of surveillance/response equipment, mobile combat vehicles, transport helicopters (CH-47JA) and UAVs in order to improve its ISR posture, and its ability to protect key facilities including nuclear power plants, and search and destroy infiltrating units, and also enhance the ability to respond effectively and efficiently by proceeding with the networking of its troops and strengthening information sharing. In sensitive locations such as areas where many nuclear power plants are located, SDF will conduct training with relevant agencies to confirm coordination procedures, and take necessary measures after considering the basis for deployment in areas neighboring nuclear power plants.

(D) Maneuver and Deployment Capability

In order to secure capabilities for swift and large-scale transportation and deployment operations for a wide variety of situations and improve effective deterrence and counter capabilities, SDF will take necessary measures after considering how to command and coordinate the transport capabilities of each SDF service unilaterally from a steady-state including the reinforcement of the transport coordination function of the Joint Staff.

SDF will continue to procure transport aircraft (C-2) and transport helicopters (CH-47JA) and introduce new utility helicopters, and will also promote relevant initiatives in order to obtain the cooperation of related local governments and other entities in promptly deploying GSDF Ospreys (V-22). In developing such aerial transport capability, SDF will take necessary measures after considering the further enhancement of efficiency and effectiveness such as avoiding functional redundancy by clarifying the roles and assignments among the various means of transportation.

In order to strengthen the transport function to remote islands, SDF will newly introduce logistics support vessels (LSV) and landing craft utilities (LCU), and consider new vessels necessary to smoothly implement amphibious and other operations in the future. SDF will also continue to actively utilize ships for which the funds and know-how of the private-sector have been utilized and consider further expansion in order to conduct large-scale transportation efficiently for coordination with the transport capabilities of SDF in light of the current situation in which they are being used effectively in dispatches to disasters and transporting its troops.

SDF will equip mobile combat vehicles transportable by airlift to its rapidly deployable basic operational units (rapid deployment divisions/brigades) as stated in II-2, and will establish rapid deployment regiments that immediately respond to various situations. In addition to rapid deployment divisions and brigades, an amphibious rapid deployment brigade, which will be strengthened by the establishment of 1 amphibious rapid deployment regiment, will conduct persistent steady-state maneuver such as coordinated activities with ships as well as various training and exercises. SDF will also establish area security units in charge of initial responses on remote islands in the southwestern region, as well as conduct maneuver training for prompt deployment to remote islands.

(3) Strengthening Sustainability and Resiliency

(A) Securing Continuous Operations

In order to be able to operate units continuously at all stages from peacetime to armed contingencies, SDF will promote measures necessary for securing ammunition and fuel and protecting infrastructure and other foundations for SDF operations.

With regard to securing ammunition, SDF will prioritize to procure anti-aircraft missiles that are necessary to secure air superiority, torpedoes that are necessary to secure maritime superiority, stand-off firepower that is necessary for countering from

the outside of their threat envelopes and interceptor missiles for BMD while taking account of the needs of joint operation.

With regard to securing fuel, SDF will secure the effective emergency procurement and promote necessary measures such as newly introduction of tankers from the perspective of stabilizing fuel supply during emergencies.

In order to minimize damage from various attacks and quickly recover functions, SDF will proceed with initiatives for the dispersion, recovery, and substitution of infrastructure and other foundations for SDF operations while taking the perspective of protection from electromagnetic pulse attacks into consideration, and will construct a posture regarding patrol and damage recovery based on the perspective of mutual cooperation among each SDF service. In addition, SDF will also proceed with various measures to make it possible for SDF to immediately utilize private airports and ports in contingency situations.

With regard to strengthening logistics foundations, for the purpose of establishing readiness capabilities, SDF will store necessary ammunition and spare parts in locations most appropriate for operations and proceed with the establishment of the necessary facilities. SDF will also expand some arsenals and make it possible to have them used jointly by each SDF service and will study and take the measures necessary to optimize combat service support including logistics from the perspective of joint operations.

SDF will steadily construct and maintain necessary living quarters surrounding SDF camps and bases and will also proceed with measures for facilities regarding their deterioration and earthquake resistance. From the perspective of enabling a sustained response posture over the long term, various measures supporting families of military personnel will be promoted.

(B) Ensuring the Operational Availability of Equipment

In order to swiftly and effectively respond to various situations, MOD/SDF will ensure high operational availability of procured equipment by securing the necessary and sufficient funds for sustainment and maintenance of equipment, expanding the use of umbrella contract system, Performance Based Logistics (PBL), under which the price is to be determined according to realized performance regarding sustainment and maintenance, sharing information on supply data between the public and private sectors, promoting the utilization of Additive Manufacturing (3D printers), which can form complex shapes with speed and precision and promoting the procurement of parts and components from international markets.

2. Priorities in Strengthening Core Elements of Defense Capability

(1) Reinforcing Human Resource Base

As equipment becomes more advanced and complex and missions become more varied and internationalized against the context of the rapidly shrinking and aging population with declining birth rate, MOD/SDF will strive to secure diverse, high-quality talents from a wider range of people and also promote initiatives on a priority base towards the establishment of an environment that enables all SDF personnel to maintain high morale and continue to fully exercise ability.

(A) Enhancement of Recruitment Initiatives

In order to steadily secure high-quality human resources into the future within the severe recruiting environment accompanying the rapidly aging population and declining birth rates, MOD/SDF will proceed with measures towards expanding the recruitment of untenured troops and expanding the source for prospects including university graduates. MOD/SDF will also proceed with a wide range of solicitation measures including the enhancement of recruiting advertisement and recruiting systems and will also strengthen collaboration with local governments and related organizations,

etc. Furthermore, in order to increase attractiveness at the point of recruiting, MOD/SDF will improve living and working environment and strive to improve re-employment support for being rehired as public servants and matriculating at universities after completing tenure.

(B) Effective Utilization of Human Resources

In order to further increase the proportion of female SDF personnel among total SDF personnel, MOD/SDF will actively hire women, promote women's participation and proceed with the establishment of the foundations for the education, living and work environment for female SDF personnel.

In order to further utilize advanced-age human resources who have plenty of knowledge, skills and experience while keeping strength, MOD/SDF will raise the early retirement age for SDF personnel and promote the expansion of reenrollment and the utilization by units of the skills of retired SDF personnel in SDF fields requiring high levels of expertise. MOD/SDF will also secure personnel for units that are responsible for fields that require high levels of expertise by effectively utilizing human resources in the private sector.

(C) Improving Living and Work Environment

As the duration of the activities of the units becomes longer in response to the severe security environment, MOD/SDF will strive to improve the living and work environment, so that all the troop members who undertake the noble mission of protecting life and peaceful livelihood of Japanese national will be able to fully exercise their capabilities and fulfill their missions with high morale, by such means as steadily renewing aged daily life/workplace fixtures, steadily securing the necessary quantities of daily necessities and reducing the number of days on offshore duty per onboard person through the introduction of shifts by multiple crews, in addition to accelerating the securing and reconstruction of the necessary barracks and housing and proceeding

with measures against aging and earthquake resistance for facilities.

(D) Promotion of Work Style Reforms

As the number of SDF personnel under time and mobility constraints because of child rearing and nursing care increases due to the consequence of major changes in the social structure, MOD/SDF will promote work style reform at MOD/SDF such as correcting long working hours and promoting the use of holidays in order to ensure proper work-life balance so that all SDF personnel will be able to fully exercise their ability and play prominent roles. Furthermore, MOD/SDF will proceed with initiatives such as establishing workplace nurseries, and will also promote measures supporting families of military personnel such as providing temporary care for children of SDF personnel who must show up at the workplace for emergency operation, while strengthening our collaboration with local governments and other entities.

(E) Enhancing Education

At each SDF service and the National Defense Academy of Japan (NDAJ), MOD/SDF will strive to enhance the content and organizational structure of the education and training, including the academic knowledge and international sensibilities necessary to nurture broad perspectives concerning security. In addition, MOD/SDF will take necessary measures after considering whether adequate education and research regarding joint operations is possible with the existing organizations, in order to enhance the capabilities and the unity of the SDF and promote cross-sectoral operations, and strive to strengthen education concerning the organizational management capabilities of MOD/SDF. In order to further promote mutual reinforcement between each SDF service, MOD/SDF will strive to standardize the curriculum and will utilize cutting-edge technology in order to promote effective and efficient education. Furthermore, MOD/SDF will strive to build up the network of students from overseas who graduated from NDAJ as a mean of support for strengthening defense cooperation and exchanges. In order to steadily implement education and training, MOD/SDF will take necessary

measures after considering the procurement of new primary trainer aircraft as the successor to the existing primary trainer aircraft (T-7).

(F) Improving Treatment and Re-Employment Support

To enable SDF personnel to fulfill their missions with high moral and pride, MOD/SDF will promote improving treatment through measures concerning honors and privileges including the enhancement of the defensive meritorious badges and improving conditions including salaries that reflects the special nature of the missions and working environment and will strive to enhance welfare benefits including family support.

In view of the fact that it is the responsibility of the Government to secure the livelihood of SDF personnel under the mandatory early retirement system, MOD/SDF will strive to further improve re-employment support by such means as promoting the further utilization of retired SDF personnel in the disaster prevention-related departments of local governments and related ministries and agencies while strengthening collaboration with local governments and related organizations from the perspective of utilizing the knowledge, skills and experience of retired SDF personnel in addition to expanding vocational training subjects and support for step-by-step acquisition of qualifications.

(G) Utilization of Personnel including Reserve Staff

In order to support sustainable unit operations in situations that are becoming increasingly diversified and protracted, MOD/SDF will promote the use of ready reserve personnel and reserve personnel in broader areas and opportunities. In order to enhance the fulfillment of the ranks of SDF reserves, MOD/SDF will also increase the number of enrollees as reserve candidates who are drawn from people without experience as SDF personnel, and promote the appointment of SDF reserves who are former reserve candidates as reserve ready personnel. Furthermore, in order to make it easier for SDF

reserves to respond to training summons, MOD/SDF will undertake the strengthening of the foundations for education and training and the revision of the content of the training, and will implement measures to obtain the understanding and cooperation of the employers.

(2) Reviewing Equipment Structure

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

In order to maximize defense capability by effectively utilizing the limited human resources to the utmost, MOD/SDF will actively promote initiatives towards automation through such means as the introduction of artificial intelligence (AI) to data processing and decision makings regarding unit operation, the procurement of UAVs and R&D of unmanned surface vehicles (USV) and UUVs. MOD/SDF will also actively promote initiatives to save manpower through such means as streamlining in design of new types of destroyers (FFM) and submarines and use of remote control for radar sites and other equipment.

(3) Reinforcing Technology Base

In order to ensure technological superiority in strategically important areas of equipment and technology by making focused investments in important technologies including artificial intelligence and other potentially game-changing technologies, MOD/SDF will revise Medium- to Long-Term Defense Technology Outlook and newly formulate R&D visions on technologies that will be important for future joint operation,

presenting the future direction of medium to long-term research and development from a strategic perspective.

In order to significantly shorten R&D timelines by streamlining its process, MOD/SDF will adopt new methods such as block approach and modularization for R&D of HVGP for the defense of remote islands, new surface-to-ship missiles for the defense of remote islands, UUVs and hypersonic weapons. MOD/SDF will also provide the capabilities of future equipment promptly through analysis of alternatives by the technological demonstration at the initial stage of R&D.

MOD/SDF will work actively to leverage potentially dual-use, advanced commercial technologies through such efforts as: technology exchange with relevant domestic and overseas entities; enhanced collaboration with relevant ministries and agencies; and use of the “Innovative Science & Technology Initiative for Security” program. In this regard, MOD/SDF will strengthen and expand cooperation with the countries who are making large-scale investments in game-changing technologies such as the U.S., and promote mutually complementary international joint R&D. MOD/SDF will reinforce its structure aimed at early discovery of innovative, emerging technologies and fostering thereof by utilizing and creating think tanks that survey and analyze latest foreign and domestic technological trends.

(4) Optimizing Equipment Procurement

In order to further promote effective and efficient equipment procurement, MOD/SDF will enhance the effectiveness and flexibility of project management throughout equipment lifecycles. To this end, MOD/SDF will take various initiatives including undertakings that contribute to cost reduction at mass production stage as a requirement at development stage, incorporating successful cases in the civilian sector to the manufacture of defense equipment, actively adopting contracting methods such as the competitive bidding method that contribute to the utilization of private sector

knowledge and expertise and tightening cost controls. In this regard, MOD/SDF will expand the items subject to project management and strive to adjust the standards for the specifications and the review of project plans with consideration of life cycle costs, and apply them.

Regarding the cost estimation of equipment without market prices, MOD/SDF will undertake more appropriate costs calculation by making the calculation of the processing costs required for the manufacture more precise and appropriate, and will also conduct the procurement of information systems at appropriate price levels. To implement these initiatives effectively, MOD/SDF will actively develop and allocate human resources by utilizing human resources with specialized expertise, skills and experiences in the private sector, and will also strive to construct the cost-database on component level of equipment based on the information compiled from the cost estimates/contract records.

MOD/SDF will actively use systematic acquisition methods including long-term contracts which facilitate efficient procurement, and streamline equipment sustainment and maintenance including the expansion of PBL and other umbrella contracts. MOD/SDF will also facilitate competition among domestic and foreign companies regarding domestically procured equipment with low cost effectiveness by considering price reduction through imports and considering the deduction of unique specifications for domestic use. Furthermore, in light of the growing importance of the management of price, delivery time and other matters in procurement through Foreign Military Sales (hereinafter referred to as “FMS procurement”), MOD/SDF will collaborate closely with the U.S. Government and other organizations through Japan-U.S. consultations and promote initiatives towards the streamlining of FMS procurement, such as striving to acquire equipment in coordination with U.S. forces regarding the timing of procurement and specifications, and to manage the status of implementation in a timely and appropriate manner.

(5) Strengthening Defense Industrial Base

In order to strengthen the resilience of Japan's defense industry base, which is an essential foundation for the production, operation, and maintenance of defense equipment, Government will actively take measures such as introducing the competition principle to Japan's defense industry, which is in a poor competitive environment, incorporating the knowledge, expertise, and technology of the civilian sector, and strengthen the supply chains of equipment. As part of these measures, MOD/SDF will review the contracting system with the aim of creating a competitive environment, including the introduction of the enterprise evaluation system that assesses how much a contractor company tries to contribute to strengthening of defense industry. MOD/SDF will also encourage the spin-off from defense technology to civilian purposes and the spin-on from cutting-edge technologies in the civilian sector to the defense industry including innovative manufacturing technologies. Furthermore, MOD/SDF will strengthen risk management regarding the vulnerability of supply chains of equipment through research on the supply chains and also promote the participation of Japan's defense industry in the sustainment and maintenance of imported equipment.

The government as a whole will promote appropriate overseas transfer of defense equipment under the Three Principles on Transfer of Defense Equipment and Technology, which permits transfer of defense equipment in cases such as the transfer contributes to Japan's security. In order to do so, based on progress and other elements in defense cooperation with our partners, the Government will make necessary improvements in implementation or related rules, promote public-private partnership in information gathering and dissemination, strengthen technology control and intellectual property management in order to prevent leakage of key defense equipment-related technologies on the occasion of overseas transfer and develop defense equipment with an eye on overseas transfer. MOD/SDF will also strengthen information security measures that will be necessary for Japan's defense industry to participate in

international businesses, and develop an information security guidebook for Japan's defense industry. Furthermore, MOD/SDF will actively promote international joint development and production with other countries utilizing Japan's technological strengths.

In addition, MOD/SDF will undertake measures such as making the equipment manufacturing process and thorough cost reduction and will strive to make Japan's defense industry base efficient and resilient while foreseeing possible realignment and consolidation of businesses that may occur as a result of these measures.

(6) Enhancing Intelligence Capabilities

In order to be able to provide timely and effective intelligence support to policy decision and SDF operations, MOD/SDF will promote initiatives to comprehensively enhance intelligence capabilities at all stages of intelligence capabilities, including gathering, analyzing, sharing and securing of information.

MOD/SDF will drastically strengthen information gathering and analysis capabilities so that MOD/SDF will be fully capable of meeting various intelligence requirements including those related to new domains. This will be conducted by strengthening gathering postures for SIGINT and IMINT through establishing and enhancing capabilities of information collection facilities, utilizing intelligence gathering satellites and commercial satellites, and diversifying means for information collection through new equipment such as long-endurance UAVs. Furthermore, MOD/SDF will also strengthen the gathering posture of HUMINT through enhancing its defense attaché system, reinforce the gathering posture of OSINT and expand its cooperation with allied countries. In this regard, MOD/SDF will strive to achieve its even more effective and efficient posture by proactively utilizing the latest information processing technology, and will also promote all-source analysis, which fuses a wide variety of information sources together. MOD/SDF will also strive to utilize information

effectively by successfully developing and connecting systems that will promote information sharing.

In order to respond appropriately to increasingly diversified intelligence requirements, MOD/SDF will promote securing and training of highly capable personnel handling information collection and analysis. Moreover, MOD/SDF will take steady measures in various directions including recruitment, education, training, and personnel allocation to strengthen comprehensive information collection and analysis capabilities.

With regard to information security, MOD/SDF will coordinate with relevant offices to make every effort by such means as education in ensuring information sharing on a need-to-know basis, and in taking preventative measures against information leakage. Also, MOD/SDF will strengthen counter-intelligence capability within MOD/SDF by promoting collaboration with relevant organizations.

3. Large-Scale Disasters

In the event of a large-scale natural disaster such as a *Nankai* Trough earthquake, or a special disaster such as a nuclear emergency, the SDF will respond to it by immediately transporting and deploying sufficient numbers of SDF units based on a joint operational approach, and also will promote measures to strengthen the response posture including the deployment of drones for disasters, a helicopter satellite communication system (HeliSat), lifesaving systems, and emergency power sources. With close coordination and cooperation with relevant ministries and agencies, local governments and the private sector, the MOD will promote such measures as to establish contingency planning and to conduct training and exercises, and secure alternative capabilities when the basis for the SDF's disaster and deployment operations is affected.

4. Strengthening the Japan-U.S. Alliance

(1) Strengthening Japan-U.S. Defense Cooperation

In order to ensure Japan's national security and to maintain and strengthen the U.S. commitment to Japan and the Indo-Pacific region, Japan will further strengthen Japan-U.S. defense cooperation under the "Guidelines for Japan-U.S. Defense Cooperation" while strengthening Japan's own capability as a premise for these efforts.

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

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

(2) Steady Implementation of Measures Concerning Stationing of U.S. Forces in Japan

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

5. Strengthening Security Cooperation

In line with the vision of Free and Open Indo-Pacific, Japan will further promote bilateral and multilateral defense cooperation and exchanges based on the understanding that realizing a security environment that is desirable for Japan is an extremely important and necessary undertaking that contributes to Japan's defense itself and also relates to its basic fundamentals. In particular, in addition to high-level exchanges, policy dialogues and exchanges among military branches, in order to improve interoperability with relevant countries and to strengthen Japan's presence, Japan will appropriately combine and strategically implement specific initiatives such as joint training and exercises, defense equipment and technology cooperation and capacity building assistance, while taking characteristics and situation specific to each region and country into account.

Based on this significance of defense cooperation and exchanges, in order to further collaborate mutually and conduct specific and thoroughgoing initiatives, Japan will proceed with the improvement of operation procedures, development of organizational systems and review of systems, and will further reflect needs concerning defense cooperation and exchanges in SDF operations. Japan will also strive to collaborate with relevant ministries and agencies as well as with other countries, non-governmental organizations and the private sector, and strategically disseminate information on Japan's initiatives. In this regard, Japan will focus on the following in particular.

(1) Holding Joint Training and Exercises

Japan will promote bilateral and multilateral joint training and exercises based on their significance as defense cooperation and exchanges. Through this, Japan will represent the will and ability to create a desirable security environment and will also seek to improve interoperability with relevant countries and strengthen cooperative relationships with other countries.

(2) Equipment and Technology Cooperation

Japan will strengthen initiatives for equipment and technology cooperation including overseas transfers of defense equipment, and strive to enhance our partners' military capabilities and maintain/strengthen medium and long-term relationships with those countries. In particular, Japan will effectively promote these initiatives by combining other efforts such as training and exercises and capacity building assistance as necessary.

(3) Capacity Building Assistance

Japan will work with countries of the Indo-Pacific region to support advance capacity development efforts based on their voluntary ownership, so as to enable counterpart military organizations to contribute further towards international peace and regional stability, thus creating security environment that is desirable to Japan. In this regard, Japan will effectively utilize knowledge and expertise accumulated by SDF, coordinate thoroughly with diplomatic policy, and coordinate with partner countries such as the U.S. and Australia undertaking capacity building assistance, so as to maximize results by combining various measures efficiently.

(4) Maritime Security

Based on the understanding that open and stable seas are a foundation of the peace and prosperity of Japan as a maritime nation and in line with the vision of Free and Open Indo-Pacific, Japan will promote initiatives such as joint training and exercises, equipment and technology cooperation, capacity building assistance, information sharing and visits by ships and aircraft as warranted by the occasion, with foreign countries that share the understanding of maritime security. Through these, Japan will show the will and ability to stabilize maritime order in an active and visible manner.

(5) International Peace Cooperation Activities

In line with the Legislation for Peace and Security, Japan will actively promote

international peace cooperation activities, while giving comprehensive consideration to such factors as purposes of mission, situation in host country, and political and economic relations between Japan and host country. In particular, Japan will actively promote activities such as dispatch of embedded personnel to mission headquarters, dissemination of United Nations (UN) military engineer unit manuals and capacity building assistance in Japan's field of expertise by making good use of accumulated experiences. While Japan will also proceed with education and training that match missions conducted on the basis of the Legislation for Peace and Security, GSDF will take the necessary measures towards newly establishing an International Activities Unit with high-level emergency response capabilities and high-level technology in areas such as facilities and the operation of UAVs by unifying the Central Readiness Regiment and the International Peace Cooperation Activities Training Unit.

The Japan Peacekeeping Training and Research Center will expand its curriculum, and strengthen cooperation with relevant ministries and agencies, foreign countries, and non-governmental organizations through efforts such as providing educational opportunities to not only SDF personnel, but also candidates from various backgrounds.

Regarding SDF operation facility in the Republic of Djibouti, which is used for anti-piracy efforts, Japan will work towards stable, long-term use of the facility for regional security cooperation and other activities.

(6) Arms Control, Disarmament and Nonproliferation

In cooperation with relevant countries and international organizations, Japan will promote non-proliferation efforts regarding: weapons of mass destruction and missiles which can serve as their delivery means; and goods and sensitive technologies of potential military use. Leveraging SDF's knowledge and human resources, Japan will engage in various activities related to arms control and disarmament undertaken by the

UN and other bodies, including the discussion on Lethal Autonomous Weapons Systems (LAWS).

6. Elements Supporting Defense Capability

(1) Training and Exercises

To effectively respond to various contingencies and enhance its deterrence effectiveness, SDF's joint training and exercises and Japan-U.S. bilateral training and exercises are to be conducted in a tailored and visible way while fully grasping the environment of the surroundings of the training areas and making absolutely sure that safety is secured. Leveraging the lessons learned from these training and exercises, SDF will conduct regular studies and reviews of its plans to address contingencies. Along with these efforts, SDF will expand the establishment and utilization of the training areas in Hokkaido and elsewhere in Japan and conduct effective training and exercises. SDF will also facilitate to expand joint/shared use of U.S. Forces facilities and areas with SDF while accounting for relations with local communities. Furthermore, SDF will facilitate the use of places other than SDF facilities or U.S. Forces facilities and areas and the utilization of excellent training environments overseas such as the U.S. and Australia, and introduce simulators actively. SDF will also strive to further enhance amphibious operation capability by the implementation of training by GSDF and MSDF in collaboration with U.S. Marines, SDF will strive to enhance the effectiveness of the swift and continuous deployment of units and strengthen their presence on a steady-state basis by organically coordinating such training and exercises that utilize training environments in Japan and abroad.

Seeking to respond to various situations with a whole-of-government approach, coordination with relevant agencies including police, firefighters, and the Japan Coast Guard will be reinforced. SDF will also actively utilize the opportunities presented by the joint training and exercises of SDF and Japan-U.S. bilateral training and exercises as a way not only for considering and verifying plans for the actual operations of SDF,

but also for actively considering and verifying comprehensive issues including civil protection.

(2) Medical Care

SDF will enhance its medical functions to keep SDF personnel's vitality and enhance their ability to deal with various situations and engage in a diverse range of missions at home and abroad.

In order to respond to various situations, SDF will strive to enhance the capacity to rapidly deploy medical bases and conduct Damage Control Surgery (DCS) to stabilize the symptoms of patients, and the capacity to manage patients being sent back as part of strengthening the system to seamlessly cover the entire stretch between the frontline and final medical evacuation destinations including the perspective of joint operations. In this regard, SDF will establish a system to jointly possess patient information from the frontline to final destinations. SDF will also strive to standardize medical supplies for the sake of interoperability and to stockpile necessary supplies. Furthermore, in order to transport patients safely, SDF will take necessary measures to introduce armored ambulances. Taking conditions and characteristics of each region into account, SDF will focus on strengthening medical functions of SDF in Japan's southwestern region.

In order to conduct the control and coordination regarding medical operations of SDF on a steady-state basis, SDF will strive to strengthen the organization of the Joint Staff. SDF will establish an efficient and high-quality medical care regime through further endeavors including upgrading of SDF hospitals into medical hubs with enhanced functions. Furthermore, SDF will proceed to improve the management of the National Defense Medical College, enhance its research functions and strive to secure high-quality talents, as well as striving to enrich the clinical experience of medical officers to better secure the number of medical officers, and promoting the appointment of SDF Reserve Personnel (physicians). In addition, MOD/SDF will proceed with the

establishment of hygienic education and training foundations common to each SDF service that are necessary to improve medical care capabilities for combat injuries and the requisite posture for various international cooperation including capacity building assistance.

(3) Collaboration with Local Communities

MOD/SDF will constantly and actively engage in public relations activities regarding defense policies and activities. Upon fielding units and equipment of SDF or U.S. Forces in Japan and conducting training and exercises, MOD/SDF will make careful, detailed coordination to meet desires and conditions of local communities, while sufficiently fulfilling accountability. At the same time, MOD/SDF will continue to promote various impact alleviation measures including sound insulation projects at residences. MOD/SDF will further strengthen collaboration with relevant organizations including local governments, police and fire departments in order to enable SDF to swiftly and securely conduct its activities in response to various situations.

In certain regions, presence of SDF units makes substantial contributions to maintenance and revitalization of local communities. There are also cases where SDF's emergency patient transport is supporting community medicine. In light of this, MOD/SDF will give due considerations to local conditions and characteristics upon reorganization of operation units as well as placement of SDF garrisons and bases. MOD/SDF will also promote various measures that contribute to the local community by such means as striving to secure opportunities for local small and medium enterprises to receive contract orders based on the contracting policy of the nation, etc., concerning small and medium enterprises while also being mindful of efficiency.

(4) Intellectual Base

MOD/SDF will contribute to the promotion of national security education through such means as dispatching instructors to educational institutions and holding

public symposiums. In addition, MOD/SDF will provide efficient and highly trustworthy information to increase public access to the research results regarding security. Moreover, MOD/SDF will promote various measures to improve the capabilities for providing information including that in foreign languages, the further utilization of increasingly diversified social networks, and MOD/SDF will also expand networks and institutional collaboration with research and education organizations, and think-tanks in Japan and abroad in order to further strengthen the research system of MOD/SDF with the National Institute for Defense Studies playing central roles. Furthermore, MOD/SDF will contribute to policy development through timely and appropriate supply of high-quality research results, based upon expertise and research capabilities, to the policy development departments.

IV. Quantities of Major Procurement

The Annex Table shows details of the quantities of major procurement described in Section III.

V. Expenditures

1. The expenditure target for the implementation of the defense capability build-up described in this program amount to approximately ¥27,470 billion in FY 2018 prices.
2. For the duration of this program, 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 program is expected to be around approximately ¥25,500 billion over the next five years. In order to adapt to increasingly rapid changes in the security environment, Japan must strengthen its

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

3. The amount of expenses based on contracts (material expenses) to be newly concluded to implement this program will be allocated within the ceiling of approximately ¥17,170 billion in FY 2018 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.

4. This program will be reviewed after three years as necessary, with consideration to such factors at home and abroad as the international security environment, trends in technological standards including information communication technology, and fiscal conditions.

VI. Other

While maintaining U.S. Forces deterrence, Japan will steadily implement specific measures stipulated in “United States-Japan Roadmap for Realignment Implementation” and other SCC documents and SACO (Special Action Committee on Okinawa) related programs to mitigate the impact on local communities, including those in Okinawa.

Annex Table

Service	Equipment	Quantity
Ground Self-Defense Force	Mobile Combat Vehicles	134
	Armored Vehicles	29
	New Utility Helicopters	34
	Transport Helicopters (CH-47JA)	3
	Surface-to-Ship Guided Missiles	3 companies
	Mid-Range Surface-to-Air Guided Missiles	5 companies
	Land-based Aegis Systems (Aegis Ashore)	2
	Tanks	30
	Howitzers	40
Maritime Self-Defense Force	Destroyers	10
	Submarines	5
	Patrol Vessels	4
	Other Ships	4
	Total (Tonnage)	23 (approx. 66,000t)
	Fixed-Wing Patrol Aircraft (P-1)	12
	Patrol Helicopters (SH-60K/K (Upgraded Capability))	13
	Ship-Borne Unmanned Aerial Vehicles	3
	Minesweeping and Transport Helicopters (MCH-101)	1
Air Self-Defense Force	Airborne Early Warning (Control) Aircraft (E-2D)	9
	Fighters (F-35A)	45
	Fighter Upgrade (F-15)	20
	Aerial Refueling/Transport Aircraft (KC-46A)	4
	Transport Aircraft (C-2)	5
	Upgrade of PATRIOT Surface-to-Air Guided Missiles (PAC-3 MSE)	4 groups (16 fire squadrons)
	Unmanned Aerial Vehicles (Global Hawk)	1

1. Japan will basically pursue the establishment of 75 Patrol Helicopters and 20 Ship-borne UAVs at the completion of the “NDPG for FY 2019 and beyond”, but those exact numbers will be considered during the period of the “MTDP (FY 2019 - FY 2023).”

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