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DEFENSE BUILDUP PROGRAM

December 16, 2022

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I. Program Guidelines

In accordance with the "National Defense Strategy" (approved by the National Security Council and Cabinet on December, 16, 2022), Japan will fundamentally reinforce its "Multi-Domain Defense Force," through the synergy of organically integrated capabilities including space, cyber, and electromagnetic domains, and is capable of sustained conduct of flexible and strategic activities during all phases from peacetime to armed contingencies, focusing on the capabilities of our opponents and new ways of warfare. By FY 2027 or by five years from now, Japan will strengthen its defense capabilities to the point at which Japan is able to take the primary responsibility for dealing with invasions against its nation, and disrupt and defeat such threats while gaining support of its ally and others. Furthermore, in approximately 10 years from now, Japan will make further efforts to better attain this defense objective and will reinforce its defense capabilities to the point at which it will be possible to disrupt and defeat invasions against its nation much earlier and at a further distance.

Given the guiding thoughts above, Ministry of Defense/Self-Defense Forces (hereinafter referred to as "MOD/SDF") will effectively and efficiently build, maintain and operate defense capabilities based on the following program guidelines.

1 The functions and capabilities required for the defense of Japan are, firstly, Japan needs capabilities with which to disrupt and defeat invading forces over long distances, thereby defending invasion itself. Japan therefore will reinforce "stand-off defense capabilities" and "integrated air and missile defense capabilities".

Secondly, should deterrence fail and invasion of Japan occur, Japan would need to ensure asymmetric advantage by leveraging, in addition to these capabilities, manned as well as unmanned assets and gain superiority across domains such as underwater, surface, and air. To this end, Japan will reinforce "unmanned defense capabilities," "cross-domain operation capabilities," and "command and control/intelligence related functions".

Lastly, Japan would also need to operate in a swift as well as persistent manner so as to force the opponent to give up invasion. For this, Japan will reinforce "mobile deployment capabilities/civil protection" and

"sustainability and resiliency."

Additionally, Japan will also place emphasis on the defense production and technology base, characterized as virtually integral part of a defense capability, as well as areas such as the human resource base that supports our defense capability.

2 In procuring equipment, by properly combining the introduction of new, high performance equipment, along with life extension and improvement of existing equipment, MOD/SDF will efficiently secure necessary and sufficient quality and quantity of defense capability. 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. In addition, MOD/SDF will steadily realize acceleration of defense equipment deployment which is particularly urgent and significant from a policy perspective of the areas that could directly affect the SDF's current and future ways of warfare by incorporating advanced civilian technologies.

3 In the face of Japan's aging population with a declining birth rate, and with no prospect of an increase in the number of recruits, MOD/SDF will comprehensively promote various measures to reinforce human resource base such as strengthening recruitment efforts, utilizing SDF Reserve Personnel and others, promoting women's participation, raising the retirement age for uniformed SDF personnel, utilizing diverse and distinguished personnel including retired uniformed SDF personnel, improving living and working environment, developing the human resources, improving treatments, and supporting reemployment, etc.

4 To further reinforce the joint deterrence capabilities of Japan and the United States in an integrated manner, Japan will promote cooperation, etc. related to cross-domain operations, including space, cyber, and electromagnetic domains. In addition, in order to reinforce the infrastructure to support effective joint response capabilities in all phases, Japan will reinforce efforts related to information security and cybersecurity, as well as equipment and technology cooperation to

promote information sharing between Japan and the United States. In addition, measures to support the stationing of U.S. Forces in Japan will be steadily implemented.

In line with the vision of the Free and Open Indo-Pacific (FOIP), to strategically promote multifaceted and multilayered security operations, Japan will further promote establishing policy frameworks such as Reciprocal Access Agreement (RAA), Acquisition and Cross Servicing Agreement (ACSA), General Security of (Military) Information Agreement (GSOMIA/GSOIA), and transfer of defense equipment and technology agreement, while also promoting defense cooperation and exchanges including bilateral/multilateral training and exercises, defense equipment and technology cooperation, capacity building, and interchanges among military branches.

5 In fundamentally reinforcing defense capabilities, Japan will, while adhering to scrap-and-build approach, optimize SDF's organization and authorized strength as well as equipment. We will also further our ongoing efforts toward more efficient procurement, which have achieved significant cost reductions. In addition, to account for Japan's aging population with a declining birth rate, Japan will robustly promote automation, labor-saving and optimization.

II Major Programs regarding SDF's Capabilities

In order for Japan to buildup defense capabilities to the point at which Japan is able to take the primary responsibility for dealing with invasions against its nation, and disrupt and defeat such threats while gaining support of its ally and others by FY 2027. Japan will place emphasis on implementing the following major programs listed from 1 to 7 in fundamentally reinforcing defense capabilities.

1 Stand-Off Defense Capabilities

In order to reinforce capabilities to conduct diverse responses from outside of the threat envelope and against vessels and landing forces invading Japan, MOD/SDF will continue development and production of the prototype of upgraded Type-12 surface-to-ship missile (develop surface-, ship-, and air-to-ship models), upgraded Hyper

Velocity Gliding Projectile and hypersonic missiles. MOD/SDF will extend the ranges of its various missiles, such as by upgrading Hyper Velocity Gliding Projectile and hypersonic missiles. In order to fundamentally reinforce defense capability as soon as possible, MOD/SDF will procure mass-produced rounds for the above-mentioned standoff missiles, and will also continue to steadily procure foreign-made stand-off missiles, such as U.S.-made Tomahawks.

In addition, MOD/SDF will proceed research and development for further diversifying launch platforms, and will develop and procure vertical missile launch system (VLS) that can be equipped on submarines and a system that can be equipped on transport aircraft, aiming to improve the operational capability of standoff missiles.

In order to ensure the effectiveness of stand-off defense capabilities, MOD/SDF will enhance functions of information collection and analysis as well as command and control by acquiring imagery intelligence, etc. using satellite constellations and introducing unmanned aerial vehicles (UAV) and target observation rounds, from the perspective of effective collection of target information. Since the operation of these stand-off missiles requires a series of command and control including the collection of target information and the assignment of targets to each unit to be conducted in a unified manner, a posture based on joint operation will be established. In addition, a series of functions necessary for the development and operation of stand-off missiles will be established by building additional ammunition storage facilities for storing stand-off missiles and other equipment, as well as facilities necessary for testing and maintenance, including securing facilities that can be used for live-firing.

2 Integrated Air and Missile Defense Capabilities

In order to enhance capabilities to detect and track threats such as Hypersonic Glide Vehicles (HGV), MOD/SDF will procure and upgrade ground-based warning and control radars (FPS) etc., as well as procure a future warning and control radar. In addition, MOD/SDF will improve its capability to respond to HGVs and other such weapons with interceptor missiles with upgraded capabilities (PAC-3 MSE) by upgrading the

surface-to-air guided missile PATRIOT system and introducing a new radar (LTAMDS).

In order to respond more effectively to various situations, MOD/SDF will begin reviewing the organization and deployment of fire units and establish a multi-layered air defense system in key areas together with mid-range ground-to-air guided missile units, and conduct unit operations for deployment from peacetime. MOD/SDF will also promote the upgrade of base air defense surface-to-air missile (SAM). In addition, research and studies will be conducted on a guided missile system which is capable of responding to HGVs and other such weapons at the glide phase.

In order to enhance the capability to respond to HGVs and other such weapons, MOD/SDF will upgrade the Type 03 medium-range surface-to-air guided missile (modified), and also procure missiles such as interceptor missiles for ballistic missile defense (SM-3 Block IIA), interceptors with upgraded capabilities (PAC-3MSE), and long-range ship-to-air missiles (SM-6).

To achieve effective and efficient response through networking, MOD/SDF will acquire a network system that enables fire control network between destroyers and other vessels (FC network) and will possess Cooperative Engagement Capability (CEC). In addition, by modifying the information coordination central (ICC) of the surface-to-air guided missile PATRIOT system, various guided missile systems will be networked together.

To strengthen Japan's air defense capabilities, MOD/SDF will procure Aegis System Equipped Vessels that will primarily conduct BMD operations.

MOD/SDF will expeditiously develop capabilities to deal with small unmanned aircraft, etc., by non-kinetic means through a combination of directed energy weapons such as high-power lasers and high-power microwaves (HPMs).

Counterstrike capabilities are SDF’s capabilities that leverage stand-off defense capability and other capabilities. In cases where armed attack against Japan has occurred, and as part of that attack ballistic missiles and other means have been used, counterstrike capabilities enable Japan to mount effective counterstrikes against the opponent’s territory.

Counterstrikes are done as a minimum necessary measure for self-defense and in accordance with the Three Conditions for Use of Force. Operation of this counterstrike capability will be conducted under unified command and control based on joint operations.

3 Unmanned Defense Capabilities

In order to accomplish missions while minimizing human loss, SDF will expeditiously procure various types of unmanned assets, promoting initiatives to optimize the existing equipment system and personnel deployment. In procuring these assets, MOD/SDF will aim to secure both safety and capability to effectively carry out our mission.

To conduct seamless intelligence, surveillance, reconnaissance, and targeting (ISRT), SDF will procure long-endurance UAVs and ship-borne unmanned assets that contribute to maritime surveillance, reconnaissance UAVs that can continuously collect target information in the threat envelope of an opponent, as well as a variety of unmanned assets for ISRT. In addition, to implement rapid transport of supplies to widely dispersed deployed units, remote bases, and naval vessels, MOD/SDF will consider introducing transportation UAVs and take necessary measures.

To disrupt and defeat an invasion against Japan, MOD/SDF will procure utility/attack UAVs and miniature attack UAVs that effectively retains various attack functions to enable itself to search and identify personnel, vehicles, naval vessels from the air and quickly respond to targets.

MOD/SDF will develop and procure unmanned surface vehicles (USVs) that can be linked to naval vessels and effectively conduct various operational maneuvers. Various types of unmanned underwater vehicles (UUVs) will also be developed to gain underwater superiority.

In addition, unmanned ground vehicles (UGVs) and UAVs will be effectively combined to improve the efficiency of security and protection systems at garrisons, bases, and critical facilities. MOD/SDF will also enhance collaboration between manned and unmanned aircraft, as well as strengthen its ability to operate multiple unmanned assets simultaneously.

4 Cross-Domain Operation Capabilities

(1) Capabilities in the Space Domain

In order to improve cross-domain capabilities, including the operation of stand-off missiles, various capabilities such as information gathering and communications utilizing the space domain will be further improved. Specifically, MOD/SDF will establish satellite constellation to improve the detection and tracking of target, with enhancing Japan-U.S. cooperation and using images from commercial satellites as supplementary endeavors. In addition, MOD/SDF will conduct required technological demonstrations to improve capabilities such as detection and tracking of HGVs using satellites, considering the possibility of cooperation with the U.S. Furthermore, in order to cope with the increasing demand for satellite communications, MOD/SDF will make efforts to establish multiple layers of communication band with higher resiliency in addition to the conventional X-band communications.

In response to the space domain, SDF will further enhance capability to disrupt C4I and other capabilities of opponent. In addition, in order to enhance the capability for Space Domain Awareness (SDA), MOD/SDF will promote various efforts, including the development of SDA satellites scheduled for launch in FY2026, as well as further studies on the operation of multiple SDA satellites. Furthermore, in order to enhance the resilience of Japan's space system including satellites, MOD/SDF will promote the use of multiple positioning signals including Quasi-Zenith Satellite System (QZSS) and commercial satellites, and start development and demonstration of technology related to resilience of satellite communication.

Regarding cooperation with other countries, in addition to promoting information sharing with the U.S. and other countries on SDA, MOD/SDF will strengthen cooperation such as multilateral shared use of communication waves with high resiliency.

In order to strengthen the organizational structure and human resource base for the space domain, MOD/SDF will engage with relevant organizations such as JAXA, as well as allied and like-minded countries such as the U.S. to secure necessary human resources for space, such as by establishing a framework to effectively utilize knowledge and experience on space gained among relevant ministries.

(2) Capabilities in the Cyber Domain

In line with the government-wide cybersecurity policy which will be comprehensively coordinated in a centralized manner, MOD/SDF will enhance its cybersecurity capability, while also promoting initiatives that contribute to strengthening cooperation with relevant ministries and agencies, critical infrastructure providers, and defense industry. MOD/SDF will establish a posture to secure command and control capabilities and high-priority equipment systems, to assure SDF's ability to perform its mission, and to support the cyber defense of the defense industry even under cyberattacks.

Therefore, considering the latest cyber threat situation, capability of MOD/SDF in the cyber domain will be strengthened, based on an assumption that there is no longer safe network, transitioning from the traditional idea that perimeter security is sufficient to maintain the network safety. Introducing security functions based on the "Zero Trust" concept will be considered. "Risk Management Framework (RMF)" based on a mindset that manages risks continuously, by analyzing, assessing and appropriately managing risks continuously after introduction of information systems, will be introduced. Protection posture of equipment systems and facility infrastructure systems will be strengthened. Based on an assumption that threats may have already intruded into our network, cyber threat hunting capability will be improved to detect the threats early. In addition, efforts will be made to support strengthening cybersecurity measures for defense industry, etc.

In order to strengthen the cybersecurity posture of MOD/SDF, MOD/SDF will reorganize the GSDF Signal School into the GSDF System and Signal/Cyber School to expand the educational infrastructure to train cyber personnel. Furthermore, efforts to develop capability to disrupt opponent's use of cyberspace for an attack against Japan, will be strengthened.

In order to strengthen the capability to implement these initiatives as an organization as a whole, the number of cyber personnel belonging to cyber-related units such as the SDF Cyber Defense Command will be expanded to approximately 4,000 by the end of FY

2027, and MOD/SDF will provide training to its personnel engaged in cyber-related tasks such as system procurement, maintenance, and operations. In addition to the increase of cyber personnel belonging to cyber-related units, these efforts will bring the total number of MOD/SDF cyber personnel to approximately 20,000 by around FY2027. Further reinforcement of cyber defense architecture is intended in the future.

(3) Capabilities in the Electromagnetic Domain

Along with reinforcing SDF's communication and radar jamming capabilities, MOD/SDF will strengthen electronic warfare capabilities by enhancing ability to detect and identify electromagnetic waves and acquiring means of deception using electromagnetic waves. In addition, MOD/SDF will expand its use of electromagnetic waves to take countermeasures against small UAVs using lasers and other means. Furthermore, MOD/SDF will reinforce electromagnetic domain management functions which reasonably manage and coordinate SDF's use of electromagnetic waves.

To this end, MOD/SDF will make the following efforts: Procurement of network electronic warfare system (NEWS) with communication and radar jamming capabilities, development of stand-off electronic warfare aircraft to jam communications and other functions from outside of their threat envelope and stand-in jammers to use various types of electronic jamming within the threat envelope; Improvement of signal detection and identification capabilities of naval vessels and fixed-wing patrol aircraft by installing radio wave detection equipment; development of anti-aircraft electronic warfare equipment to jam radar from ground. Furthermore, MOD/SDF will verify the provision of jamming capabilities to fixed-wing patrol aircraft and take measures as necessary. In addition, MOD/SDF will start operation of vehicle-mounted laser devices for responding to small UAVs and take measures for early deployment of directed energy technologies such as high-power laser systems and high-power microwaves (HPM). Along with adding the functions to monitor and manage the use of electromagnetic domain in each SDF system, MOD/SDF will work closely with the relevant ministries and agencies to ensure SDF's use

of spectrum necessary for its activities.

(4) Capabilities in the Ground, Maritime, and Air Domains

MOD/SDF will accelerate the acquisition of equipment, etc. and capability improvement, etc. in each of the SDF services, and strengthen capabilities in the ground, maritime, and air domains that form the basis of cross-domain operations. MOD/SDF will actively utilize advanced technology to steadily upgrade equipment, etc. in each of the SDF services, and enhance advanced operational capabilities to collaborate with unmanned assets.

5 Command-and-Control and Intelligence-related Functions

(1) Enhancing Command-and-Control Functions

In order to ensure a swift and reliable command and control, MOD/SDF will establish resilient communications, system network, and data infrastructure, establish a real-time command and control posture, conduct studies on command and control capabilities that enables unified command of each SDF service, and take measures as necessary.

To this end, MOD/SDF will develop a cloud as a common infrastructure to reinforce information sharing function for cross-domain operations; upgrade the SDF central command system to strengthen the command and control function and its connection with related ministries and agencies; procure a future command and control system to strengthen GSDF's autonomous operational capability; upgrade the command and control system to further speed up the decision-making cycle in the MSDF; upgrade Japan Aerospace Defense Ground environment (JADGE) to strengthen the resilience of the command and control function in the ASDF; and enhance the mobility and flexibility of command and control function ; procure a space operation command and control system which centrally commands and controls the operation of space-related equipment and reinforce resilience of the satellite use. Additionally, MOD/SDF will enhance the Defense Information Infrastructure (DII) necessary for sharing those information.

(2) Enhancing Information Gathering and Analysis Functions

MOD/SDF will establish a seamless intelligence gathering and analysis scheme by persistently collecting information on military trends in the vicinity of Japan and fundamentally reinforcing our capability and posture to process, analyze, and disseminate such information, as well as establish a posture that can promptly provide information that contributes to policy decisions and SDF unit operations. In addition, MOD/SDF will examine the ideal state of information sharing with U.S. forces and joint operations for unmanned assets, and take necessary measures.

To this end, the Defense Intelligence Headquarters (DIH), which plays a central role in intelligence functions for the defense of Japan, will strengthen the capabilities of each function, such as signal, imagery, human, and open-source intelligence (SIGINT, IMINT, HUMINT, and OSINT), while expanding the training base for analysts, etc., enhancing the system for intelligence collection and analysis, including the utilization of geospatial intelligence (GEOINT), and augmenting its defense attaché system. The SDF will build a satellite constellation for acquiring target detection and tracking capabilities, which will be complemented by various initiatives such as the strengthening of cooperation with the United States and the use of commercial satellites, as well as the strengthening of information gathering capabilities from space domain using information-gathering satellites and commercial satellites. In addition, various types of UAVs, etc. that are indispensable for effective ISR implementation will be procured.

(3) Responses to Integrated Information Warfare with Special Regard to the Cognitive Dimension

In the international community, emphasis is being placed on information warfare, which is an attempt to create a favorable security environment by influencing the public opinion and decision-making of other countries through disinformation and strategic communications, etc., and minimizing the impact to one's own decision-making, even when conflict has yet to arise. MOD/SDF will establish a system and posture that ensures the capability to cope with information warfare.

To this end, the DIH, which plays a central role in responding to integrated information warfare, will strengthen the system for information collection, analysis, and communication. In addition, the following functions will be developed: automatic collection and analysis of open-source information using artificial intelligence (AI), which will enable continuous collection and analysis of information on trends in each country; automatic collection of information on social networking sites, etc., to determine the authenticity of information communicated by each country; and future forecasting functions for estimating the security situation.

6 Mobile Deployment Capabilities / Civil Protection

In order to secure capabilities for swift and reliable transportation of necessary units to defeat the invasion of islands to the southwest region, MOD/SDF will procure various transportation assets such as transport ships (LSVs, LCUs and maneuverable boats), transport aircraft (C-2), aerial refueling/ transport aircraft (KC-46A, etc.), and transport/ utility helicopters (CH-47J/JA, UH-2). In addition, MOD/SDF will secure additional private finance initiative (PFI) vessels specialized for mass transportation of vehicles and containers to supplement the maritime transportation capability.

To enhance self-sufficiency in transportation to southwestern regions, MOD/SDF will procure transportation vehicles (container trailers) and cargo handling equipment (large cranes and large forklifts). In addition, MOD/SDF will conduct research and development of a landing support system to improve the efficiency of transportation toward islands where the size of seaports is limited. At the same time, MOD/SDF will make efforts to reduce transportation needs by stockpiling supplies in the southwestern region.

In addition, in order to enhance the effectiveness of the SDF's mobile deployment and civil protection, the government as a whole will work on measures to develop and strengthen airports and seaports, and others, particularly in the southwestern region, and take necessary measures to enable SDF to use facilities such as existing airports and seaports, as operational infrastructure. Furthermore, the government as a whole will deepen collaboration with relevant organizations

regarding the expansion of the use of civilian vessels and aircraft for SDF's maneuver and deployment, and coordinate and cooperate to systematically implement civil protection measures employing various transport assets of the SDF, in addition to civilian vessels and aircraft. In doing so, the government as a whole will strengthen civil protection training for armed attack situations as well as secure various evacuation facilities. In addition, MOD/SDF will promote various measures such as reinforcing SDF units capable of also responding to civil protection, and utilizing SDF Reserve Personnel.

7 Sustainability and Resiliency

(1) Procurement of Various Ammunitions

Procure required quantities of various ammunitions, including standoff missiles such as the Type 12 surface-to-ship guided missile, interceptor missiles for ballistic missile defense (SM-3 Block IIA), interceptor missiles with upgraded capabilities (PAC-3MSE), long-range ship-to-air missiles (SM-6), and Type 03 medium-range surface-to-air guided missile (modified) promptly. In order to mass-produce ammunitions quickly and stably, MOD/SDF will encourage the defense industry to expand its domestic manufacturing capacity. Furthermore, MOD/SDF will strengthen maintenance posture for the various ammunitions.

In addition, in order to meet the increasing storage requirements for ammunitions, MOD/SDF will promote the expansion of ammunition storage facilities and the disposal of unused ammunitions.

(2) Securing fuel, etc.

MOD/SDF will secure necessary amount of fuel for SDF operations. In addition, in order to secure fuel requirements quickly and stably, MOD/SDF will build new fuel tanks while also renting private fuel tanks. In addition, MOD/SDF will secure necessary quantities of food and clothing.

(3) Improving the Operational Availability of Defense Equipment

By securing necessary budget for maintenance and material, with lead time in consideration, while dealing with the increasingly

sophistication and complexity of defense equipment, MOD/SDF will eliminate the number of non-mission capable equipment caused by material shortage and maximize the number of operationally available equipment by FY 2027. To this end, the supply warehouse will be renovated to improve the precision of supply and demand forecasts and to shorten the time it takes for units to receive parts. In increasing the number of operationally available units, MOD/SDF will promote the outsourcing of maintenance and other operations to outside parties in order to make effective use of limited resources. In addition, MOD/SDF will promote the introduction of digital transformation (DX) in the logistics support field to optimize maintenance and upkeep. In addition, MOD/SDF will expand comprehensive contracts, including Performance Based Logistics (PBL) where outcomes are acquired through performance-based arrangements that will deliver SDF's requirements in maintenance.

(4) Facility Improvement

In conjunction with the acquisition of various types of ammunition, including standoff missiles, SDF will secure necessary ammunition storage facilities. In securing the ammunition storage facilities, SDF will pursue and promote efficient joint operations among the SDF services, joint use of U.S. ammunition storage facilities, and dispersed deployment to islands from the viewpoint of ensuring the resiliency of the ammunition.

In order to protect major equipment and command posts, etc., and ensure a tenacious fighting posture, MOD/SDF will establish underground basing, reinforce facilities, take electromagnetic pulse (EMP) measures for command posts, construct dispersal pads for fighter aircraft, build hardened alert shelters, and establish redundant utility infrastructures. In addition, the base security function will be strengthened while reducing the number of personnel.

In addition, MOD/SDF will develop facilities to enable efficient operation of new equipment such as unmanned assets.

When renovating existing facilities, protective measures against explosives, nuclear, biological, and chemical weapons, electromagnetic waves, and guerrilla attacks shall be provided.

Structural reinforcement of facilities in accordance with their functions and importance, and relocation and consolidation of facilities to ensure stand-off distance shall also be implemented.

In order to prevent the functional decline of SDF facilities in the event of large-scale disaster, MOD/SDF will promote countermeasures against disasters such as tsunamis, starting from bases and camps that are expected to be damaged significantly and are important for operations. In the future, SDF will improve the resiliency of defense facilities and infrastructure in bases and camps in order to adapt and respond to various challenges associated with climate change, and to fulfill SDF's missions and roles.

MOD/SDF will smoothly execute facility improvements in a focused manner over a five-year period, while utilizing the knowledge of relevant ministries and agencies as well as private sector.

III Organization of Japan Self-Defense Forces

Based on the program guidelines, the structures of each SDF services shall be developed as described in 1 through 5.

1 Joint Operation Structure

(1) A Permanent Joint Headquarters will be established in order to build a system capable of seamlessly conducting cross-domain operations at all stages from peacetime to contingency, with the aim of strengthening the effectiveness of joint operations among each SDF services. In this regard, in light of the rapidly increasing severity of the security environment surrounding Japan, MOD/SDF will make every effort to pursue the establishment of a Permanent Joint Headquarters as soon as possible and, upon the new establishment of the Permanent Joint Headquarters, SDF will examine how each unit, including joint units, should be structured.

(2) For further improvement of capabilities in the cyber domain, including constant and continuous monitoring of MOD/SDF's network and systems as well as the capability to disrupt opponent's use of cyberspace for an attack against Japan, SDF will possess a cyber defense unit as a joint unit, in order to fundamentally reinforce cyber defense capability.

(3) In addition, a new maritime transport unit will be established as a joint unit to improve the mobile deployment capabilities to the southwestern region.

2 Japan Ground Self-Defense Force

(1) Level of Defense Capability to Possess

(a) Regarding the basic operational units, the 15th Brigade will be reorganized into a division in order to strengthen the defense architecture in the southwestern region. The other eight divisions, five brigades, and one armored division will be operated on the basis of rapid deployment in order to deter and respond immediately to various situations effectively and rapidly. In addition, units with specialized functions such as airborne units, amphibious rapid deployment units and air rapid deployment units will be also operated on the basis of rapid deployment.

In this regard, based on a favorable training environment, one division, two brigades, and one armored division that maintain a high level of proficiency will be placed in Hokkaido on the premise that they will be deployed and transported rapidly by the integrated transport capability.

As a premise for the above measures, GSDF will thoroughly ensure optimizing organizational capacity, and will consider how to structure the posture in the mid- and long-term span.

(b) In order to strengthen stand-off defense capabilities, surface-to-ship missile units equipped with upgraded Type 12 surface-to-ship missiles will be retained. Furthermore, units equipped with Hyper Velocity Gliding Projectile, and a long-range guided missile unit equipped with upgraded Hyper Velocity Gliding Projectile and hypersonic missiles will be newly established.

(c) In order to protect important bases, etc. from various airborne threats, surface-to-air missile units equipped with upgraded Type 03 medium-range surface-to-air guided missiles (modified) will be retained.

(2) Reorganization of the Major Units.

(a) In order to strengthen cross-domain capabilities, GSDF will newly

establish a new anti-aircraft, and the electronic warfare unit and reinforce the electronic warfare unit on islands. Furthermore, a new multi-purpose unmanned aerial vehicle unit that retains information gathering and attack capabilities, etc., will be established. In addition, a new unit will be established to ensure advantages in information warfare, including in the cognitive dimension, in coordination with cyber and electronic warfare.

(b) In order to strengthen sustainability and resiliency, the logistics support system will be strengthened by establishing a new branch depot in the southwestern region, and reorganizing the Ground Material Control Command to centrally operate each logistic depot.

(c) In order to secure the increased personnel necessary to strengthen stand-off defense capabilities, cyber capabilities, etc., MOD/SDF will abolish units mainly composed of the SDF Ready Reserve Personnel, and allocate the regular uniformed SDF personnel belonging to the units to fulfill the personnel requirements. In addition, MOD/SDF will manage SDF Ready Reserve Personnel as replacements.

3 Japan Maritime Self-Defense Force

(1) Level of Defense Capability to Possess

(a) To conduct persistent and multilayered information gathering and surveillance in the waters around Japan in peace time, MSDF will possess surface units strengthened by the introduction of patrol vessels and other vessels so that it can persistently respond to an increasing volume of activities, such as ensuring security of maritime traffic, which is the foundation of stable economic activities, and conducting overseas deployment for security cooperation with other countries. And in a contingency, in order to secure Japan's territory and the waters around Japan and to ensure security of maritime traffic, MSDF will possess strengthened and increased destroyer units and minesweeper units, as well as strengthened patrol helicopter units to enable effective and sustained execution of various operations such as anti-

submarine warfare, anti-surface warfare, and anti-mine warfare. In addition, MSDF will procure Aegis System Equipped Vessels that will primarily conduct BMD operations

(b) To conduct information gathering and surveillance in the waters around Japan continuously in peace time, and to gain and maintain underwater supremacy, a critical area for cross-domain operations, during contingency, MSDF will possess strengthened submarine units.

(c) To conduct persistent and multi-layered information gathering and surveillance in the waters around Japan in peace time, and to conduct various operations including reconnaissance, targeting, and anti-submarine warfare in a contingency, MSDF will possess strengthened fixed-wing patrol aircraft units.

(2) Reorganization of the Major Units

(a) To enhance the capability of responding to integrated information warfare, including the cognitive dimension, and to develop a posture to enable swift decision-making, MSDF will conduct necessary research and development. In addition, MSDF will newly establish an Information Warfare major unit to carry out comprehensive information warfare through consolidating units with intelligence, cyber, communications, meteorology and oceanography functions.

(b) To establish a multilayered surveillance posture, to secure underwater and maritime superiority, and to reduce loss of human resources, MSDF will introduce various unmanned assets, such as UAVs, USVs including the use of existing manned vessels, and UUV, as well as newly establishing unmanned asset units.

(c) MSDF will establish a system that can sustainably carry out unit operations that require a high level of speed and volume of activities, under the joint operation system, through reorganizing the structure of the major units and establishing new units as

necessary.

(d) MSDF will improve the capability of Self-Defense Fleet Headquarters, etc. responsible for the operation of the Joint Task Force, to improve warfare sustainability. In addition, MSDF will initiate a review of logistics posture and take necessary measures to ensure the sustainability and robustness of MSDF.

(e) Destroyers and Frigates (DDG, DD, FFM), and other vessels will be equipped with stand-off missiles, such as upgraded Type-12 surface-to-ship missile.

(f) In addition to (e) above, to gain underwater supremacy, MSDF will develop a submarine (SS) equipped with Vertical Launching System (VLS) with the aim of acquiring stand-off missiles carrying submarines.

(g) MSDF will decommission vessels that have been in service for a considerable amount of years and have limitations in expandability, etc., and increase the number of labor-saving frigate (FFM), etc., at an early date. In addition, in order to enable diverse operations such as distributed maneuver operations, MSDF will increase the number of air defense destroyers and improve the air defense and electronic warfare capabilities of destroyers and frigates (DDG, DD, and FFM). Furthermore, to enhance mine warfare capabilities, the number of minesweepers that control unmanned minesweeping assets will be increased, and the number of replenishment ships will be increased to strengthen logistical support capabilities on the sea. In addition, in order to respond to air attacks in a contingency, etc., the modification of destroyers ("Izumo" type) will be promoted to enable the operation of fighter aircraft (F-35B).

(h) MSDF will procure fixed-wing patrol aircraft (P-1) with enhanced capability and patrol helicopter (SH-60K (upgraded version)), and improve the electronic warfare, anti-ship attack, and other capabilities of fixed-wing patrol aircraft.

4 Japan Air Self-Defense Force

(1) Level of Defense Capability to Possess

(a) ASDF will possess a warning and control unit equipped with a grounded-based warning and control radar to conduct persistent warning and surveillance of the airspace around Japan including the vast airspace over the Pacific Ocean, as well as to detect and track new airborne threats such as HGVs in addition to ballistic missiles flying toward Japan. In addition, ASDF will possess airborne warning and control units consisting of reinforced airborne warning units to effectively monitor and control the airspace around Japan for a longer period of time in times of heightened tensions such as the so-called gray-zone situations.

(b) The ASDF will possess a greatly enhanced fighter aircraft unit in terms of both quality and quantity, where fighter aircraft and their supporting functions can work in unison to provide a comprehensive posture for Japan's air defense and other operations. In addition, to ensure fighter units can continue to fight tenaciously in various air operations of increasing intensity in the airspace around Japan, etc., ASDF will possess an enhanced aerial refueling/transportation unit and air rescue unit.

(c). ASDF will possess an enhanced air transport unit to effectively conduct mobile deployment of troops, etc. and international peace cooperation activities, etc.

(d) In addition to coordinating with the GSDF's surface-to-air missile units in conducting air defense in critical areas, ASDF will possess an enhanced fire unit to respond to increasingly diverse and complex airborne threats, with the capability to respond in the terminal phase, providing multi-layered protection to Japan from ballistic missile attacks.

(e) ASDF will possess a specialized space domain unit with enhanced SDA capabilities to ensure the stable use of space.

(f) ASDF will possess an unmanned aircraft unit to collect information in areas relatively remote from Japan and to conduct persistent surveillance in the air when the situation becomes tense.

(2) Reorganization of the Major Units.

(a) In order to further refine and strengthen the quality and quantity of Japan's air capability, ASDF will accelerate the pace of replacement of fighter aircraft that are not suitable for modernization (F-15) with fighter aircraft (F-35A and F-35B). In addition, ASDF will continue to upgrade capabilities for modernized fighter aircraft (F-15), such as improving its electronic warfare capability, equipping stand-off missiles, and increasing the number of equipped missiles. Furthermore, with regard to fighter aircraft (F-2), from the viewpoint of strengthening stand-off defense capability, upgrade program will be promoted for a total of two squadrons for them to carry upgraded Type 12 surface-to-ship missile, etc. In addition, ASDF will conduct necessary studies by FY2027, and take necessary measures in order to further advance the quantitative enhancement of air capability. In this regard, studies on the possibility of utilizing unmanned aerial vehicles will be conducted.

(b) Joint development of the next-generation fighter aircraft with the UK and Italy will be promoted, while ensuring freedom of modification and interoperability with the allied country, so that by the end of FY 2035, when fighter aircraft (F-2) are expected to start retiring, fighter aircraft capable of securing and maintaining air superiority in the future can be delivered. In addition to the fighter aircraft itself, development of systems including unmanned aerial vehicles, etc., will be undertaken with the possibility of international collaboration in sight.

(c) Furthermore, for the sake of efficient training of pilots of cutting-edge fighter aircraft such as the F-35 and next-generation

fighter aircraft, ASDF will take necessary measures after studying the ideal education system, including the integration of ground training and flight training by training aircraft as one education system.

(d) In order to continue the battle tenaciously, a system for rapid development of deployment infrastructure, etc. will be established so that mobile and dispersed operations can be carried out at various locations. In addition, necessary studies will be conducted on operational concepts of air capability so that air capability can be flexibly concentrated and directed to the front of the aggression of Japan.

(e) In order to respond to high-intensity air operations and from the viewpoint of persistent combat, the aerial refueling and transport aircraft (KC-46A, etc.) will be increased in order to strengthen the aerial refueling function and rescue aircraft (UH-60J) will be replaced. In addition, in order to strengthen the air defense posture in the airspace around Japan, including the vast airspace over the Pacific, ASDF will promote the deployment of mobile warning and control radars, etc., on the islands on the Pacific side, as well as increase airborne early warning aircraft (E-2D). In order to implement rapid maneuvering deployment of ground units, etc., ASDF will procure transport aircraft (C-2).

(f) In order to improve the operational capability of stand-off missiles, ASDF will introduce unmanned aerial vehicles that can persistently collect target information inside the opponent's threat envelope, and new operational intelligence units will be established to strengthen the intelligence function necessary for the execution of the unit's mission.

(g) ASDF will continue to upgrade the capabilities of surface-to-air missile PATRIOT system and others in order to respond to increasingly diverse and complex airborne threats.

(h) In order to strengthen the space operation capability, development of SDA posture will be promoted steadily, and a new specialized space domain missions unit commanded by a general will be established, and the "Air Self-Defense Force" will be renamed to "Air and Space Self-Defense Force".

5 Optimizing Organizational Capacity

The number of SDF personnel in the GSDF, MSDF, and ASDF will be reviewed as necessary to optimize organizational capacity, targeting the level at the end of FY2022. In addition, the capacity necessary to strengthen the joint operation system will be transferred from each SDF, and GSDF personnel will be transferred to MSDF and ASDF, to meet the increased personnel requirements of MSDF and ASDF. To this end, approximately 2,000 GSDF personnel will be transferred to joint unit, MSDF and ASDF, respectively.

During the period of this plan, necessary measures will be taken to secure the necessary number of personnel without increasing the total number of SDF personnel.

IV Strengthening the Japan-U.S. Alliance

1 Strengthening Japan-U.S. Defense Cooperation

In order to further reinforce deterrence capabilities of Japan and the United States in an integrated manner, Japan will establish a posture to work together with the United States on a regular basis and promote cooperation with the United States in cross-domain operations including space, cyber and electromagnetic domain and measures to improve interoperability, cooperation in the use of Japan’s counterstrike capabilities, air-defense, anti-surface warfare and anti-submarine warfare, mine warfare, amphibious operations, airborne operations, ISRT, protection of assets and facilities, and logistic support. In addition, Japan will improve its responsive capabilities, including the readiness and interoperability of the Alliance, through more advanced and practical exercises and training.

In order to deter unilateral changes to the status quo by force and such attempts and occurrence of various situations, Japan will further expand and deepen joint Flexible Deterrent Options (FDO) and intelligence, surveillance and reconnaissance (ISR), and will on a regular basis increase

joint/shared use of Japanese and U.S. facilities, and promote mutual deployment of both units to their respective facilities for training or other purposes. In addition, Japan will further develop coordination functions between Japan and the United States, and will realize closer operational coordination with like-minded countries and others with the Japan-U.S. Alliance as its core.

In order to reinforce the infrastructure to support effective joint responses in all phases, Japan will reinforce measures related to information security and cybersecurity for facilitating information sharing between Japan and the United States, and will further enhance defense equipment and technology cooperation through joint analysis and joint research in cutting-edge technology, joint development and production of defense equipment, improvement in mutual interchangeability, sharing and reinforcing of various networks, expansion of production and maintenance capability of U.S. military equipment in Japan, and reinforcement of supply-chain.

2 Steady Implementation of Measures to Support the Stationing of U.S. Forces in Japan

From the perspective of not only supporting the stable presence of U.S. Forces in Japan but also strengthening deterrence and response capabilities of the Japan-U.S. Alliance, Japan will steadily secure funding for expenses related to the stationing of U.S. Forces in Japan, including Host Nation Support.

V. Collaboration with Like-minded Countries and Others

While guided by the vision of Free and Open Indo-Pacific (FOIP), Japan will further promote bilateral and multilateral defense cooperation and exchanges based on the recognition that creating a security environment that is desirable for Japan is an extremely important and essential initiative that contributes to Japan’s defense itself and also relates to its basic foundations. In particular, considering the policy on collaboration with like-minded countries and others indicated in the National Defense Strategy, in addition to high-level exchanges, policy dialogues, service-to-service exchanges and personnel exchanges such as liaison officers, Japan will appropriately combine, depending on characteristics of each SDF services, and strategically implement specific initiatives taking

characteristics of the region as well as situation of each country into account, such as strategic port calls and air visits, bilateral/multilateral training and exercises, defense equipment and technology cooperation, capacity building, and International Peace Cooperation Activities, in order to improve interoperability among SDF and armed forces of like-minded countries and to strengthen Japan's presence.

Based on such 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, review of institutions including treatment, and establishment of infrastructure such as hotlines between countries including secure communications, 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, nongovernmental organizations and the private sector, and strategically disseminate information on Japan’s initiatives. In doing so, Japan will particularly emphasize the following.

1 Bilateral/Multilateral Training and Exercises

Taking their significance as defense cooperation and exchanges into account, Japan will promote bilateral/multilateral training and exercises including logistics cooperation. Through this, Japan will demonstrate the intention and capability to create a desirable security environment and will also seek to improve interoperability with like-minded countries and strengthen cooperative relationships with them.

2 Equipment and Technology Cooperation

Considering that cooperation in defense equipment is an initiative that spans more than half a century from conception to retirement, Japan will strengthen initiatives for equipment and technology cooperation including overseas transfers of defense equipment and international joint development and strive to enhance our partners’ military capabilities and strengthen mid- and long-term relationships with those countries. In particular, these initiatives should be combined with other efforts such as defense cooperation and exchange, training and exercises, and capacity-building to be promoted effectively. In this regard, Japan will

consider the transfer of equipment that has reached a considerable number of years in service and has limited expandability to like-minded countries through early decommissioning or early removal from service.

3 Capacity Building

Japan will further strengthen its efforts of capacity-building to armed forces and others of countries in the Indo-Pacific region, aiming to create a desirable security environment for Japan, while promoting the strengthening of relations with the countries to be assisted. In this regard, Japan will coordinate thoroughly with diplomatic policy, and work together with its ally and like-minded countries such as the United States and Australia, so as to maximize results. In addition to those for Southeast Asian countries, capacity-building for Pacific Island countries will be expanded

VI Elements Supporting Defense Capabilities

1 Training and Exercises

To effectively respond to various contingencies and enhance the deterrence effectiveness, MOD/SDF will conduct bilateral and multilateral training and exercises with Australia, India, and European and Southeast Asian countries in addition to SDF's joint training and exercises and Japan-U.S. bilateral training and exercises, in a planned and visible way to demonstrate Japan's intention and capability that unilateral changes to the status quo by force and such attempts will not be tolerated. In doing so, MOD/SDF will seek to enhance and strengthen training and exercises as FDO which are flexibly implemented according to the situation, as well as enhance the content of training and conduct new training utilizing favorable training environments overseas, based on the development of Reciprocal Access Agreement (RAA) and other measures.

In addition, to maximize the capabilities of SDF units in a contingency, MOD/SDF will expand the establishment and utilization of training areas and other facilities in Hokkaido and other areas in Japan, and steadily establish and enhance the necessary training infrastructure in Japan. In addition to expanding the joint/shared use of U.S. military facilities and areas by SDF and the use of civilian airport

and seaport facilities, MOD/SDF will enhance training for rapid deployment of its units to islands such as those in the southwestern region, joint training, and civil protection training, etc., with relevant organizations such as the police, Japan Coast Guard, firefighting services and local governments to appropriately respond to infringements that do not amount to armed attacks from outside as well as armed attacks in the vicinity of remote islands.

In order to expand such training, it is necessary to obtain the understanding and cooperation of related local governments and local residents. Therefore, while taking all possible measures to ensure the safety of training, MOD/SDF will give due consideration to the surrounding environments of training infrastructures, including training ranges in Hokkaido and other areas in Japan.

2 Reinforcing Coordination and Cooperation with the Japan Coast Guard

In order to appropriately respond to any types of contingencies, coordination and cooperation with Japan Coast Guard will be further strengthened. To this end, MOD/SDF will deepen the information sharing and coordination mechanism with Japan Coast Guard, as well as enhance various response procedures and training, including developing procedures to have the Minister of Defense control the Japan Coast Guard in an armed attack situation and conducting joint training.

3 Collaboration with Local Communities

To enable SDF and U.S. Forces in Japan to seamlessly and effectively conduct activities on a daily basis, Japan will strive to gain understanding and cooperation from local governments and residents around their facilities.

Japan will actively engage in public relations activities regarding the policies and activities of MOD/SDF and also the role of U.S. Forces in Japan on a regular basis, and coordinate to accommodate the requests and situations of the local communities, while fulfilling accountability. At the same time, Japan will continue to promote measures to improve the living environment of areas around defense facilities including those against noise the perspective of promoting cooperation to the defense of Japan.

In addition, in light of the fact that in some regions, the very existence of SDF units contribute greatly to the maintenance and revitalization of local communities, and the transportation of emergency patients by SDF support the local medical service, MOD/SDF will give due consideration to the characteristics of the regions and the contribution to the local economy in order to gain understanding of the local governments and residents upon reorganization of units as well as placement and operation of SDF camps and bases. In addition, based on the national government's policy on contracts concerning small and medium-sized enterprises (SMEs), MOD/SDF will promote various measures that contribute to local economies, such as securing opportunities for local SMEs to receive orders, while also taking efficiency into consideration.

4 Reinforcing Policy-Making Functions

In order for SDF to fully exert its capabilities and response to the increasingly severe, complex, and rapid-paced strategic environment, strategic and agile defense policy planning and making are required including such domains as space, cyber and electromagnetic spectrum and MOD/SDF will fundamentally reinforce its functions. In this regard, MOD/SDF will establish a consultation framework to obtain policy advice from experts. Also, MOD/SDF will strengthen its posture to comprehensively advance future way of “warfare” for SDF and how to utilize and nurture cutting-edge technologies as well as apply those technology to defense necessary for this from a strategic perspective, while closely cooperating with relevant ministries and agencies, private research institutions, and private companies particularly defense industry as their core. Furthermore, in order to promote such efforts and support the formulation of policies, MOD/SDF will review and reinforce its research system led by National Institute for Defense Studies and reinforce its functions as an intellectual base.

In addition, MOD/SDF will contribute promoting security education by dispatching lecturers to educational institutions and enhancing public symposiums, etc., so that citizens can accurately recognize knowledge and information on security policy. MOD/SDF will also promote various measures to further utilize social networks, which are

becoming increasingly diverse, and to enhance our ability to disseminate information, including in foreign languages. In addition, in order to further strengthen the research and education functions of MOD/SDF, centering on National Institute for Defense Studies, MOD/SDF will expand networks and organizational collaboration with domestic and foreign research and education institutions, universities, think tanks, and other organizations.

VII Protection of Life, Person and Property of Japanese Nationals and Measures for International Security Cooperation

1 Response to Large-Scale Disasters

In the event of various types of disasters including natural disasters such as the Nankai Trough Earthquake, nuclear disasters, and other special disasters, MOD/SDF will take all possible measures to ensure initial response promptly by transferring and deploying units of sufficient scale, while maintaining joint operations as the basis of its operations.

At the same time, measures will be taken to strengthen the response posture, such as the procurement of UAVs(near-field), helicopter satellite communication systems (helicopter SATs), lifesaving systems, and emergency power supplies.

In addition, in close coordination and cooperation with related ministries and agencies, local governments, and the private sectors, MOD/SDF will promote various measures such as conducting various training and exercises, formulating plans, and securing alternative functions and deployment infrastructure in the event of a disaster.

Furthermore, including in areas where many nuclear power plants are located, MOD/SDF will conduct training in cooperation with related organizations, verify coordination procedures, and take necessary measures after examining such issues as securing deployment infrastructure in the vicinity of nuclear power plants.

2 Measures for Maritime Security and Use of the Airspace based on Existing International Rules

Recognizing that open and stable seas and the use of the airspace based on existing international rules are the foundation of peace and

prosperity of Japan as a maritime nation, and based on the vision of a FOIP, MOD/SDF will promote efforts such as port calls by naval vessels and aircraft on various occasions with other countries that share awareness of maritime security and the use of airspace based on existing rules such as through joint training and exercises, equipment and technologies cooperation, capacity building and information sharing. In this way, MOD/SDF will actively and visibly demonstrate our willingness and capability for the stability of the maritime order and the use of the airspace based on existing international rules.

3 International Peace Cooperation Activities

In line with the Legislation for Peace and Security, Japan will continue to 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 countries. In particular, by making good use of accumulated experiences, Japan will actively promote activities such as dispatch of embedded personnel to mission headquarters, capacity building related to UN PKO such as the UN Triangular Partnership Program (TPP), and the dispatch of staff members to UN headquarters, etc., in order to contribute to the improvement of the security environment. In addition, in order to strengthen the systems concerning international activities including rescue or transportation of Japanese nationals overseas in the unstable international situation, the Central Readiness Regiment and the International Operations Training Unit will be integrated to form a new international operations force with high readiness and high technical capabilities in the field of facilities and unmanned aircraft operation, etc.

MOD/SDF will expand curriculum of the Japan Peacekeeping Training and Research Center, and given the importance of cooperation with relevant ministries and agencies, foreign countries, and non-governmental organizations, MOD/SDF will strengthen the cooperation with them through efforts such as providing educational opportunities to not only SDF personnel but also other personnel from various backgrounds.

Regarding the SDF's operation facility in Djibouti for counter-piracy

operations, MOD/SDF will promote renewal/upgrade to ensure its long-term and stable utilization for regional security cooperation, including the protection and transportation of Japanese nationals abroad in the Middle East and Africa.

VIII New Measures for Early Deployment of Defense Equipment

MOD/SDF will steadily realize acceleration of defense equipment deployment which is particularly urgent and significant from a policy perspective of the areas that could directly affect the SDF's current and future operations. Those areas include stand-off defense capabilities, maritime assets, soft kills, unmanned defense capabilities, AI, next-generation information and communications, space domain, DX, high-power energy and integrated information warfare. For acceleration of defense equipment deployment, MOD/SDF will receive proposals from the defense-related companies or incorporate advanced civilian technologies through start-up companies, domestic research institutes and other organizations.

To this end, MOD/SDF will establish a new framework to deploy defense equipment within the next five years and to operate it with intensive iterations of operational verification, evaluation, and improvement, in addition to flexibly reviewing administrative procedures, contracting methods and other rules of MOD/SDF that might be obstacles to this acceleration of deployment efforts, and to realize its full-scale operation within approximately the next 10 years.

IX Defense Production and Technological Base as Virtually Integral Part of a Defense Capability

1 Reinforcing Defense Production Base

While Japan's defense industry is responsible for each stage of the equipment life cycle, the equipment and defense industry are inseparable. In this context, the defense production and technological bases are virtually integral part of a defense capability.

While the defense business requires a large investment of management resources to meet advanced performance requirements and maintenance measures, companies are facing diverse issues;

profitability is lower than the level defined by the procurement system, the industry is currently considered as unattractive because sales channels are limited to SDF, and growth is not expected, and various risks, such as supply chain risks and cyberattacks, are apparent.

In order to address these issues, MOD/SDF will make defense industry more attractive, by adopting method to evaluate each company's quality management, cost management and delivery management for defense business to calculate company’s costs and profits accurately. In addition, MOD/SDF will adopt a method of acquiring equipment that further emphasizes the viewpoint of maintaining and strengthening the domestic infrastructure while developing company’s predictability for projects, such as the plan-and-proposal method. As for equipment to be procured under the Foreign Military Sales (FMS) procurement, efforts will be made to promote the participation of domestic companies, as well as to streamline and improve efficiency.

In order to cope with various risks and maintain and strengthen the defense production bases, appropriate fiscal measures and financial support will be provided for companies’ initiatives such as upgrading manufacturing and other facilities, strengthening cybersecurity, making supply chains more resilient, and business succession.

MOD/SDF will conduct supply chain surveys to identify supply chain risks and promote new entrants to the supply chain to strengthen the supply chain and incorporate advanced commercial/basic technologies. Furthermore, MOD/SDF will cooperate with defense authorities of allies and like-minded countries, etc., to mutually complement supply chains. In this way, the supply chain will be strengthened to contribute to stable procurement.

Since the protection of information from intelligence activities and cyberattacks by foreign countries, or other cause, is a prerequisite for defense production and international equipment and technology cooperation, MOD/SDF will reinforce industrial security system while taking measures for steady implementation of Standards on Cybersecurity Measures for Defense Industry as well as for formulation and application of Defense Industrial Security Manual. In addition, MOD/SDF will implement sensitive technology security in conjunction

with economic security measures such as the patent application non-disclosure system.

2 Reinforcing Defense Technology Base

MOD/SDF will realize acceleration of defense equipment development through various efforts concerning R&D by identifying specific projects necessary for future warfare and organizing the entire picture up to the acquisition. Based on the integrated equipment system, which is systematically organized for future battles from the viewpoint of joint operations, MOD/SDF will intensively invest in equipment/technology fields (1)-(6) that are directly linked to future battles. Furthermore, by improving the efficiency of the R&D process, including improving the capabilities of conventional equipment, and by introducing new methods, MOD/SDF will realize shortening the time required for R&D and lead to the acceleration of defense equipment deployment.

At the same time, MOD/SDF will establish a mechanism to promptly abolish projects for research and development with low prospects for results.

In order to secure technological superiority in the future, and realize advanced capabilities ahead of other countries, MOD/SDF will pursue and implement technological cooperation, including international joint research and development and research and development that incorporates a wide range of advanced commercial/basic technologies, and at the same time will invest heavily in technologies that can be directly linked to defense applications, aiming to acquire technologies at an early stage. In doing so, MOD/SDF will promote collaboration with projects in related ministries and agencies and actively utilize the results of those projects.

Based on the above, the policy division, the operational division, and the technological division will work in unison to promote measures related to the study of future battle strategies and the utilization of advanced technologies.

From the perspective of gathering Japan's scientific and technological capabilities, MOD/SDF will strategically release the information on technological fields and research and development prospects that it

enhances predictability for companies and others. In addition, in order to fundamentally reinforce the functions to produce defense innovation and groundbreaking equipment, etc., a new research institute will be established in Acquisition, Technology and Logistics Agency (ATLA) after FY2024 through scrap-and-build, the R&D -related organizations of the agency, and the strengthening of the R&D system will be implemented. In addition, from the viewpoint of effective implementation of initiatives related to advanced technologies, MOD/SDF will strongly promote technological cooperation not only with domestic research institutes but also with allies and like-minded countries such as the United States, Australia, and the U.K.

Promote the development of equipment that anticipates equipment transfer from the development stage and review of SDF's original specifications. In developing equipment, MOD/SDF will consider cost reductions in the mass production and maintenance phases. In addition, regarding conventional technologies such as ammunition and vehicles, measures would be taken to maintain the production and technological infrastructure.

(1) Stand-Off Defense Capabilities

Japan will acquire capabilities to deal with vessels and landing forces invading Japan, including its remote islands, from locations outside of threat zones.

a. Continue development of upgraded Type-12 surface-to-ship missile (surface-, ship-, and air-to-ship missiles), aiming to complete development of the surface- type by the end of FY2025, the ship- type by the end of FY2026, and the air-type by the end of FY2028 for the air-type.

b. Buildup submarine-type stand-off defense capabilities that can be launched from submarines that can operate in a highly covert manner.

c. Continue research on Hyper Velocity Gliding Projectile (HVGP) for island defense that fly at high altitude and high speed to hit ground targets, aiming to complete the project for the early deployment by the end of FY2025. In addition, upgraded HVGP for island defense will be developed to defeat the opposing forces invading the islands, from more distant areas

in the mainland, etc.

d. Promote research on hypersonic weapons, which are difficult to be intercepted by traveling at hypersonic speeds, aiming to complete the project by FY2031, and consider the development of derivative types.

e. Research on new anti-ship guided missile for island defense that has a longer-range, low radar cross section (RCS), and higher mobility, while having multiple functions through modularization.

(2) Capabilities to Respond to HGVs, etc.

MOD/SDF will acquire technologies to deal with Hypersonic Glide Vehicle (HGV) threats and others that are difficult to detect or intercept with existing equipment.

a. Develop upgraded Type-03 Medium-Range SAM (modified) with capability of responding to HGV and ballistic missiles in addition to cruise missiles, etc.

b. Conduct research and studies on guided missile systems for responding to HGV threats that travel at hypersonic speeds at high altitudes with high maneuverability.

(3) Capabilities to Respond to Drones and Swarm Attacks

MOD/SDF will aim to acquire and promptly equip technologies to economically and effectively respond to the rapidly growing airborne threat of drone swarms.

a. Continue research on various types of high-energy lasers to intercept drones and other airborne threats.

b. Continue research on technologies to intercept drones and other objects by radiating them with high-power microwaves (HPM).

(4) Unmanned Assets

In order to promote unmanned and labor-saving defense equipment, MOD/SDF will acquire technologies related to UUVs while reviewing existing equipment systems and personnel assignments.

a. Conduct research on technologies such as UUV-UUV control to

enhance operational capabilities in the underwater domain.

b. Conduct research on operational support technology to control multiple unmanned combat vehicles (UGVs) from a manned vehicle, autonomous driving technology, etc.

c. Conduct research on technologies related to USVs in order to further reduce personnel and achieve unmanned waterborne vessels.

(5) Measures for Next-Generation Fighter Aircraft

a. Steadily promote joint development of the next-generation fighter aircraft with the UK and Italy, aiming to complete development by the end of FY2035. Research and development will also be promoted for a combat support unmanned aircraft to be collaborating with manned aircraft such as the next-generation fighter aircraft.

b. In conducting research and development of these technologies, Japan-led development will be realized by ensuring freedom of modification for timely and appropriate upgrade in the future and domestic production and technological bases for high readiness, etc. on the premise that the aircraft maintains the capability to effectively counter numerically superior opponents.

(6) Reinforcing Other Deterrence and Response Capabilities

a. Continue research on future railguns to improve the capability of intercepting various airborne threats.

b. Conduct research on technology of jamming device that misleads radar and other radio wave equipment into believing that multiple threats exist by giving false information.

c. Conduct research to reflect the technology to support commanders' decision-making into equipment by analyzing the course of action using AI to cope with the complex and fast changing combat situations.

d. Research and develop the next generation signal intelligence aircraft, which will be the successor to the multipurpose aircraft (EP-3), with improved target information collection capability, etc.

e Develop new small mines that are compact and can be controlled remotely in order to lay mines quickly from naval vessels on alert watch, etc.

f. Begin research and development of hypersonic surface-to-air guided missiles utilizing the results of elemental research on hypersonic guided missiles.

3 Promotion of Defense Equipment Transfer

Transfer of defense equipment and technology overseas is not only a strategic tool of foreign and defense policy to build effective partnerships with allied and like-minded countries and to deter unilateral changes to the status quo by force or invasion of Japan, but also effective in ensuring the growth of the defense industry through the expansion of defense equipment market. From this perspective, the government will take the lead in promoting appropriate overseas transfer of defense equipment and technology by further cooperation between the public and private sectors. The government will also establish a fund and provide corporate assistance as necessary.

4 Promotion of Various Measures and Institutional Development

In order to implement the above policies, necessary budgetary measures, etc., as well as necessary legislation and financing of projects with a high policy nature through the use of government financial institutions, etc., will be provided, and the status of their execution will be constantly verified and the system will be revised as necessary.

X Strengthening the Foundation for SDF Personnel to Fulfill Abilities as Core of Defense Capabilities

1 Reinforcing Human Resource Base

In order to fundamentally reinforce defense capabilities, MOD/SDF will reinforce the human resource base by securing necessary uniformed SDF personnel and civilian officials and others, and by conducting study of necessary systems, while paying attention to the facts that individual SDF personnel are required to have more knowledge, skills, and experience than ever before and that MOD/SDF needs to develop SDF personnel who have a background to reliably deal with cross-

domain operations, information warfare, and others. In this regard SDF personnel who work on research and development will be secured and their knowledge and skills will be developed. In addition, MOD/SDF will reinforce its education, especially focusing on domains such as cyber, and utilize civilian workforce in these domains. To this end, an environment will be created in which all SDF personnel can demonstrate their abilities even as they face life events such as childcare, childbirth, and nursing care, and MOD/SDF will take comprehensive measures focusing on the entire life cycle starting from recruitment, including reskilling of SDF personnel.

(1) Enhancing Recruitment Efforts

In order to stably secure excellent human resources in the severe recruiting environment with a declining number of people eligible for recruitment due to a declining birthrate, MOD/SDF will promote various recruiting measures such as digitalization of recruitment PR, and strengthen the functions of the Provincial Cooperation Offices and the cooperation with local governments and related organizations.

In addition, from the viewpoint of improving the attractiveness of fixed-term SDF personnel, MOD/SDF will review the system of Candidates for SDF personnel and improve support for the re-employment and learning at universities, etc., after the completion of their term of service. Furthermore, in light of the declining birthrate and higher education level, measures to expand the recruitment of untenured officers and to broaden the recruitment base to include college graduates, etc., should be promoted. At the same time, MOD/SDF will secure high-quality human resources at an early stage through the expansion of the SDF scholarship student system.

Furthermore, in order to incorporate human resources with specialized knowledge and skills who are expected to be active in fields such as cyber and space domains, a new SDF personnel system will be established to enable flexible recruitment and appointment, and necessary measures will be taken to utilize human resources from the private sector, including retired SDF personnel.

(2) Utilization of SDF Reserve Personnel and Others.

In order for SDF Reserve Personnel and others to effectively supplement regular SDF personnel in the changing operational environment and diversifying missions of SDF, MOD/SDF will not only improve their sufficiency rates but also fundamentally review and reinforce the system of SDF Reserve Personnel and others. To this end, after reviewing the roles of SDF Ready Reserve Personnel and SDF Reserve Personnel, MOD/SDF will expand the recruitment of them from civilians with no experience in the SDF and review the current system in light of their age limits and training periods, and other issues.

(3) Effective Use of Human Resources

MOD/SDF continues to actively recruit female SDF personnel and appoint them according to their motivation, ability, and aptitude, as well as develop an educational infrastructure that supports their activities, and systematically develop women's quarters in the military barracks and naval vessels with an eye to increasing the number of female SDF personnel.

In addition, in order to further utilize human resources with abundant knowledge, skills, and experience, the retirement age for SDF personnel will be raised while paying attention to their military strength, and the duties in which re-enrolled SDF personnel can be engaged in will be greatly expanded.

Curbing mid-career retirements is an urgent issue, therefore a survey on SDF personnel’s attitude towards mid-career retirement will be conducted in order to contribute to the consideration of effective measures to curb mid-career retirement. Taking into consideration the special nature of the missions and service environment, MOD/SDF will constantly review and implement necessary measures.

(4) Improvement of Living and Working Environment, etc,

Recognizing that there is no place for harassment which ruins the mutual trust among SDF personnel and shakes the very foundation

of the entire organization, MOD/SDF will establish new measures based on the findings of the expert panel and other reviews on harassment prevention, and ensure that all SDF personnel are fully aware of them. In addition, MOD/SDF will develop an organizational environment of zero tolerance for harassment with continuous review of the measures taken to ensure that they are in line with the times.

In addition, MOD/SDF will steadily develop housing necessary for introducing and reorganizing units as well as ensuring readiness. MOD/SDF will also systematically take measures against aging and earthquake of barracks and housing, including modernization and preventive maintenance. Furthermore, the living and working environment for personnel will be improved by ensuring the required number of living and working equipment, replacing aging equipment, and ensuring the required number of daily consumables. In doing so, Japan will place consideration on creating a comfortable working environment even in special environments such as naval vessels. Through these measures, MOD/SDF will aim to improve the morale of SDF personnel.

In addition to promoting efforts to ensure work-life balance, including the development and dissemination of systems that support a good balance between family and work, MOD/SDF will promote measures such as the development of childcare facilities and temporary childcare for children during emergency visits for the office based on the needs of SDF personnel. In addition, MOD/SDF will expand measures to support families in cooperation with local governments and related organizations.

(5) Human Resource Development

In order to secure human resources who can contribute to more advanced cross-domain joint operations, MOD/SDF will strengthen the education on joint operations in the educational institutions such as the Joint Staff College and staff colleges of each service. Each SDF service, National Defense Academy, and National Institute for Defense Studies will strengthen their education and research contents and architecture for cyber domain and others for securing

and providing skilled human resources who can become the core of SDF units. In addition, MOD/SDF will transform the Japan Ground Self-Defense Force High Technical School into a combined school of each service, as well as a coeducational school by accepting female students.

In addition, in order to further promote mutual complementation between each service of the SDF, MOD/SDF will integrate their educational programs and promote effective and efficient education and research by utilizing state-of-the-art technologies.

Furthermore, the 1st and 2nd Service Schools of the Maritime Self-Defense Force will be integrated in order to implement unified education and improve educational effects, and the T-7/T-4 successor aircraft and related systems will be upgraded to optimize the flight education and training environment for the so-called 5th generation fighter pilot training.

(6) Improving Treatment and Reemployment

Through conducting a survey of SDF personnel's overtime work, etc., MOD/SDF will make salaries and allowances based on the special nature of their missions and work environment, and continue to give due treatment to personnel engaged in harsh missions, especially on naval vessels and radar sites. In addition, treatment will be improved given the fact that missions are increasing such as the counterstrike capability. MOD/SDF will conduct research on the salary systems of military personnel in other countries, and consider how SDF personnel should be paid in the future. MOD/SDF will promote measures concerning honors and privileges for those well-deserved for achievements through many years of diligent services for their duties as SDF personnel.

In addition, given that it is the responsibility of the government to secure the livelihood of uniformed SDF personnel after retirement under the early retirement system or fixed-term service system, MOD/SDF will further improve and strengthen reemployment support by enhancing the career guidance and job training opportunities for SDF personnel scheduled for retirement, and by strengthening cooperation with local governments, relevant

organizations, and private companies, etc.

2 Transformation of Medical Functions

In order to cope with various situations and respond to diverse missions in Japan and abroad, MOD/SDF will promote integrated medical operations by unifying medical functions common to all SDF units, build a posture that can mobilize the full strength of SDF's medical force, including the National Defense Medical College, and promote fundamental reforms to improve the combat trauma care capabilities.

In order to save the lives of personnel who are performing their duties in a contingency without regard for danger, it is necessary to establish a seamless medical care and evacuation posture from the front line to the destination hospital. For this purpose, it is necessary to strengthen the respective medical functions first aid at the front line, medical evacuation by utilizing various assets of each service to transport wounded personnel to the destination hospital, and the SDF hospitals.

First, for the first aid at the front line, MOD/SDF will increase the number of frontline combat medics certified as assistant nurse and paramedic, and further strengthen the foundation for education and training. In addition, a new joint training course for damage control surgery following first aid at the frontline will be established to systematically train personnel. Furthermore, MOD/SDF plans to provide necessary education and training regarding surgical operations on board naval vessels for those who have completed the above course in order to strengthen onboard medical care capability.

For aero medical evacuation, new training equipment will be introduced, and an education and training environment will be established to improve first-aid capabilities during transport of wounded and sick. In implementing these education and training programs, MOD/SDF will standardize, integrate and improve common knowledge and skills among each force.

MOD/SDF considers enhancing the functions and survivability of the SDF Naha Hospital is an effective measure in strengthening medical capacity in the southwestern region. MOD/SDF will take measures for SDF Naha Hospital such as increasing the number of beds, adding

medical departments, and building underground facilities. Other SDF hospitals that can be a destination will be strengthened similarly when they are reconstructed.

Since most of medical functions are common to all SDF units, MOD/SDF will promote standardizing medical equipment and materials in consideration of interoperability between each SDF service. In addition, in order to enable Self-Defense Forces hospitals and other facilities to obtain the medical information of each SDF member in a timely manner without distinction between the SDF services, the medical record of each member would be digitized, and a system would be established to enable prompt retrieval and viewing of medical record for each member.

Most deaths in war are due to exsanguination from bomb wounds, gunshot wounds, and other similar causes. To prevent such deaths, it is extremely important to secure blood products for transfusion, and MOD/SDF would consider establishing a system to autonomously secure and stockpile blood products. In addition, in order to secure medical oxygen, which is as important as blood products in war wound care, MOD/SDF will also acquire oxygen concentrators and other relative equipment.

In addition, MOD/SDF will strengthen education and research, including combat trauma care capabilities improvement, at the National Defense Medical College in light of modern medical technology evolution. The National Defense Medical College Hospital, which is the clinical site, is to be strengthened to accommodate the acceptance of those wounded in war, in addition to advanced medical education for medical and nursing officers and skill improvement for the medical personnel of SDF. In order to accommodate the acceptance of those wounded in war, the hospital will undergo a drastic reform of its operation, and its functions will be strengthened by utilizing opportunities such as the reconstruction of the hospital. As a complement to these efforts, efforts will also be made to ensure that medical and nursing officers receive training outside the department.

XI. Optimization Efforts

1 Equipment

For GSDF, in order to optimize the air structure, the air units of divisions and brigades will be abolished with some exceptions, and helicopter functions will be concentrated in each district unit, while the functions of anti-tank and combat helicopters (AH) and observation helicopters (OH) will be transferred to UAVs and UAVs for utility/attack and surveillance, etc. The functions of AHs and OHs will be transferred to UAVs and UAVs for reconnaissance and other purposes. In doing so, the minimum functions necessary will be maintained by arming existing helicopters, etc.

For MSDF, the number of fixed-wing patrol aircraft (P-1) acquisitions will be partially reviewed in conjunction with the acquisition of a dwell UAV to enhance offshore surveillance capabilities over a wide area. The number of patrol helicopters (SH-60K (upgraded version)) acquired will be partially revised due to a review of the shipboard requirements, including the installation of fighter aircraft (F-35B) on destroyers (Izumo class). Proceed with the discontinuation of the use of multi-purpose aircraft (U-36A).

For ASDF, in order to optimize the aircraft types, it will move forward with the elimination of the use of rescue search aircraft (U-125A) and other aircraft.

Further efforts for effective and efficient acquisition of equipment include: cost reduction through planned and stable acquisition of equipment by expanding the application of long-term contracts, improving the predictability of companies and promoting efficient production, procurement in consideration of the supply-demand situation of equipment including that of other countries, and narrowing down SDF-unique specifications that cause costs to rise. In addition, the SDF's own unique procurement system, which takes into account the supply-demand situation of equipment, including that of other countries, and the narrowing of specifications, etc., will enhance the effectiveness of project management throughout the equipment life cycle.

2 Personnel

In addition to transferring the capacity necessary to strengthen the joint operation system from each of the SDF, GSDF personnel will be transferred to MSDF and ASDF to optimize the organizational capacity

of the SDF, based on the increase of required personnel by MSDF and ASDF. To this end, approximately 2,000 GSDF personnel will be transferred to joint unit, MSDF and ASDF.

In addition, the number of all SDF officers will not be increased, but rather a review of existing units and the use of outside labor force, such as private-sector contractors, will be promoted.

XII Quantities of Major Procurement

Targets to be achieved in five years and approximately in ten years for the defense capabilities to be fundamentally reinforced under this program are shown in Appendix 1.

The specific scale of the major procurement of defense equipment listed in II and III above is shown in Appendix 2.

In addition, the major formation quota and the specific scale of the major procurement of defense equipment, etc. in approximately 10 years are shown in Appendix 3.

XIII Expenditures

1 The expenditure aiming for the implementation of defense capability buildup described in this program for the next five years from FY2023 to FY2027 amount to approximately ¥43 trillion.

2 The annual defense budgets for FY2023 to FY2027 under this program amount to approximately ¥40,500 billion in total (approximately ¥8,900 billion in FY 2027), on the assumption that the following additional measures will be taken.

(1) Based on the progress of each project, further accelerate the improvement of SDF facilities in an agile and flexible manner (approximately ¥1,600 billion);

(2) Utilize the settlement surplus in the general account further when the surplus is larger than the expected settlement surplus in 6 (approximately ¥900 billion).

In light of the increasingly severe fiscal conditions and the significance of other budgets related to the lives of the people, in harmony with other measures taken by the Government, further optimization and rationalization of defense buildup will be

thoroughly implemented, by means of suspending the use of equipment whose importance has decreased, reviewing projects of low cost-effectiveness, optimizing equipment procurement through cost management/reduction and long-term contracts, and securing other revenues. If the surplus does not increase to the above-mentioned level, MOD/SDF will secure financial resources virtually through these initiatives.

In the budget formulation process of each fiscal year, MOD/SDF will take care to respond to unforeseen circumstances such as changes in the security environment. On top of that, MOD/SDF will examine the progress, effectiveness, and feasibility of each project, including the equipment procurement shown in Appendix 2, and revise projects flexibly, if necessary.

3 The expenses based on contracts (material expenses) to be newly concluded to implement this program amount to approximately ¥43,500 billion (excluding the amount corresponding to payments for the period outside of the program that contribute to improving project efficiency, such as maintenance), and the future obligation for each fiscal year is to be managed appropriately.

4 Since measures such as for equipment procurement and maintenance, facility maintenance, R&D, and system maintenance will be intensively implemented during the next five years from FY2023 to FY2027 under this program, MOD/SDF will make efforts to appropriately take these into account and proceed defense buildup in a stable and sustainable manner in the subsequent program based on the FY2027 standard.

5 This program will be reviewed, if necessary, based on the medium to long-term defense and fiscal outlook, considering various factors at home and abroad such as the international environment at the time, trends in technological standards including Information and Communication Technology (ICT), and the situation of the economic power and fiscal bases supporting the reinforcement of defense capabilities.

6 To secure financial resources for the stable sustainment of defense capabilities after FY2027 as well as for covering this program from FY2023 to FY2027, necessary measures will be implemented in both expenditure and revenue areas, such as reform of expenditures, utilization of settlement surplus, creation of defense capability reinforcement funds utilizing non-tax receipts, and tax measures.

XIV Notes

In order to reduce the burden on Okinawa Prefecture and other local communities, specific measures regarding the review of the U.S. military force posture in Japan and SACO (Special Action Committee on Okinawa) related projects will be steadily implemented.

Appendix Table 1 Targets for Fundamentally Enhanced Defense Capabilities and Timeline for Achievement

Fields	By 5 years until FY 2027*	Approx. 10 Years Later
	If an invasion of Japan occurs, Japan will respond with primary responsibility and buildup defense capabilities to disrupt and defeat the invasion while gaining support from its ally and others.	Further efforts to ensure the defense concept described on the left (buildup defense capabilities to disrupt or to defeat invasion at an earlier and more distant location)
Stand-Off Defense Capabilities	●Acquire practical capability to operate stand-off missiles	●Acquire capabilities to operate more advanced stand-off missiles ●Secure required sufficient quantities
Integrated Air and Missile Defense Capabilities	● Reinforce capability to respond to Hypersonic Weapons ●Reinforce capability to respond to miniature Unmanned Aerial Vehicles (UAV)	●Reinforce wide-area air defense capabilities ●More efficient and effective UAV countermeasures
Unmanned Defense Capabilities	●Expand the use of UAV to strengthen capabilities to practically operate	●Reinforce capability to control multiple unmanned assets simultaneously, etc.
Cross-Domain Operation Capabilities/Civil Protection	●Reinforce Space Domain Awareness (SDA), cybersecurity capabilities, and electromagnetic domain capabilities, etc. ● Reinforce ground, sea, and air domain capabilities that become basis of cross-domain operations	●Further reinforce space operation capability ●Further reinforce cybersecurity capability to enable support for entities other than SDF ● Strengthen ground, maritime, and air capabilities to work with UAV
Command and Control/Intelligence-related Functions	●Accelerate decision-making through the use of Artificial Intelligence (AI), etc., while strengthening the resiliency of the network ● Strengthen information acquisition and analysis in both strategic and tactic information, including responses in the cognitive dimension	●Reinforce information gathering and analysis capabilities through the use of AI, etc., while enhancing the system for persistent information gathering and sharing

Mobile Deployment Capabilities	● Reinforce the SDF's transportation and supply capabilities (deployment/civil protection), including enhancement of the SDF's transportation assets and use of PFI vessels, etc.	●Further enhancements of transportation capability ●Accelerate transportation and supply by improving supply centers, etc.
Sustainability and Resiliency	●Increase quantity of ammunitions and missiles ●Ensure maximum mobility of equipment except during maintenance ●Improve the resiliency of defense facilities for contingencies ●Secure required ammunition depots, etc.	●Maintain and ensure adequate inventory of ammunitions and guided missiles ●Maintain the mobility ratio ●Further strengthening of defense facilities ●Further securing of ammunition depots and other facilities c, etc. commensurate with ammunition requirements
Defense Production and Technological Bases	●Establish strong defense production bases through measures to strengthen the supply chain, etc. ●Focused investment in equipment areas directly linked to future warfare, and a significant reduction in research and development periods ●Early deployment of defense equipment	●Realize innovative equipment ●Maintain strong defense production bases ●Maintain strong defense production bases
Human Resource Base	●Secure the necessary number of high-quality human resources from a wide range of sources, including the private sector, by strengthening recruitment capabilities and establishing a new SDF personnel system. ●Reinforce education and research (cyber and other domains, joint operations, medical) ●Improvement of living and working environments and treatment by taking necessary measures against aging barracks and housing and eliminating equipment shortages	●Even amid a declining population eligible for recruitment, continuously and stably secure the necessary human resources, including those with specialized knowledge and skills. ●Further strengthen education and research ●Foster an organizational environment in which all members can demonstrate their individual abilities while maintaining high morale

※ Accelerate investment in improving mobility, securing ammunition, and fortifying key defense facilities to maximize the use of existing equipment, while focusing on fundamentally strengthening core areas of future defense capabilities, such as stand-off defense and unmanned asset defense capabilities.

Appendix Table 2

Classification	Equipment Type	Procurement Quantity
(1) Stand-off Defense capabilities	Upgraded Type-12 surface-to-ship missile (Surface-, Ship-, Air-ship)	Surface-type 12 Units
	Hyper Velocity Gliding Projectile (HVGP)	
	Hypersonic Guided Missile	-
	Ship-to-surface cruise guided missile (Tomahawk)	-
		-
(2) Integrated Air and Missile Defense capabilities	Type 03 Medium-Range Surface-to-Air Missile (modified)	14 Units
	Aegis System-Equipped Vessels	2 ships
	Airborne Early Warning Aircraft(E-2D)	5 aircraft
	Interceptor Missiles for Ballistic Missile Defense (SM-3 Block IIA)	-
	Interceptor Missiles with Upgraded Capabilities (PAC-3MSE)	-
	Long-Range Ship-to-Air Missiles SM-6	-
(3) Unmanned Defense Capabilities	Various UAVs	-
	USV	-
	UGV	-
	UUV	-
(4) Cross-Domain Capabilities	Destroyer	12 ships
	Submarine	5 ships
	Patrol Vessel	10 aircraft
	Fixed-wing Patrol Aircraft (P-1)	19 aircraft
	Fighter (F-35A)	40 aircraft
	Fighter (F-35B)	25 aircraft
	Fighter Upgrade (F-15)	54 aircraft
	Stand-off Electronic Warfare Aircraft	1 aircraft
	Network Electronic Warfare System (NEWS)	2 types
(5) Command and Control/ Intelligence-related Functions	Signals Intelligence Aircraft (RC-2)	3 aircraft
(6) Mobile Deployment Capabilities and Civil Protection	Transport Vessels	8 ships
	Transport Aircraft (C-2)	6 aircraft
	Aerial Refueling and Transport Aircraft (KC-46A, etc.)	13 aircraft

Appendix Table 3 (approximately 10 years later)

Classification	Future Posture		
Joint Units	Cyber Defense Units Maritime Transport Units		1 squadron 1 group
Ground Self-Defense Force	Active-Duty Personnel		149,000 people
	Major Units	Basic Operational Units	9 divisions 5 brigades 1 armored division
		Airborne Units Amphibious Units Air Transport Units	1 airborne brigade 1 amphibious rapid deployment brigade 1 helicopter brigade
		Stand-off Missile Units Joint Units	7 surface-to-ship guided missile regiments
			2 battalions (hyper velocity gliding projectile Intended for the defense of remote islands)
			2 long-range guided missile units
		Surface-to-Air Guided Missile Units	8 anti-aircraft artillery groups
		Electronic Warfare Units (incl. anti-aircraft electronic warfare units)	1 electronic warfare operations unit (incl.1anti-aircraft electronic warfare unit)
		Unmanned Vehicle Units	1 multi-purpose unmanned aerial vehicle unit
		Information Warfare Units	1 unit
Maritime Self-Defense Force	Major Units	Surface Vessels Units （Destroyers and Minesweeper vessels） Submarine Units Patrol aircraft Units（Fixed-wing Patrol aircraft Units） Unmanned Vehicle Units Information Warfare Units	6 groups (21 divisions) 6 divisions 9 divisions (4 divisions) 2 divisions 1 unit

Classification	Future Posture		
	Major Equipment	Destroyers	54
		(Aegis-Equipped Destroyers)	(10)
		Aegis System Equipped Vessels	2
		Patrol Vessels	12
		Submarines	22
		Combat Aircraft	Approx. 170
Air Self-Defense Force	Major Units	Air Warning & Control Units	4 Aircraft Control & Warning Wings
		Fighter Aircraft Units	1 AEW wing (3 squadrons)
		Aerial Refueling/Transport Units	13 squadrons
		Air Transport Units	2 squadrons
		Surface-to-Air Guided Missile Units	3 squadrons
			4 groups (24 fire squadrons)
		Space Domain Mission Units	1 squadron
		Unmanned Aerial Vehicle Units	1 squadron
		Operational Intelligence Units	1 squadron
	Major Equipment	Combat Aircraft	Approx. 430
		Fighters	Approx. 320

Note 1: 14 out of the 15 divisions/brigades are operated on the basis of rapid deployment.

Note2 : Regarding the number of fighter aircraft units and fighters, necessary studies will be conducted by FY 2027 and necessary measures will be taken in order to further advance the quantitative enhancement of air capability. In this regard, the possibility of utilizing unmanned aerial vehicles will be studied.