DEFENSE of JAPAN 2022

防衛白書

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On the Publication of Defense of Japan 2022

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The international community is currently facing its greatest trial since WWII. It is not an exaggeration to say that we have entered a new period of crisis in the twenty-first century. Russia's aggression against Ukraine has shocked the world, with the loss of countless innocent civilians' lives giving rise to deep indignation and grief. Such unilateral changes to the status quo by force should never be tolerated, as they shake the very foundation of the international order based on universal values that has supported the peace and prosperity of the international community.

This defiance of international order is not just Europe's problem. As strategic competition between nations becomes more apparent against the backdrop of changes to the global power balance, the existing order is being exposed to serious challenges, especially in the Indo-Pacific region, which is at the center of this competition.

In particular, China continues to unilaterally change or attempt to change the status quo by coercion in the East China Sea and South China Sea. The country's ties with Russia, an aggressor nation, have deepened in recent years, with joint navigations and flights being conducted in the areas surrounding Japan by both Chinese and Russian vessels and aircraft. Furthermore, China has made clear that it would not hesitate to unify Taiwan by force, further increasing tensions in the region.

North Korea has repeatedly carried out ballistic missile launches well into 2022, thereby unilaterally escalating its provocations towards the international community. It has also defended Russia in respect of the latter's aggression against Ukraine, asserting that the fault for this situation lies with the United States and other Western countries.

Fortunately, Japan has many likeminded partners. In the face of unprecedented challenges, the ties between the partners are further strengthened. Among these, the bond of the Japan–U.S. Alliance remains unshakeable, and trilateral cooperation among Japan, the U.S., and Australia, and quadrilateral cooperation among Japan, the U.S., Australia, and India, are further deepening. Also, as symbolized by vessels making port calls to Japan one after another last year, Japan continues to work together with European nations to ensure that the region is free and open.

As a way of defending against any such changes to the international order based on universal values, Japan must not delay in bringing together its knowledge and technology and putting all its collective efforts into strengthening its national defense capabilities.

Japan is currently working on drawing up a new National Security Strategy, etc. under the order of Prime Minister Kishida, and the Government will establish these new strategies boldly and creatively, thinking flexibly beyond existing paradigms in order to preemptively deter changes to the status quo by force and to also be fully prepared for modern warfare, including information warfare and cyber warfare, both seen during Russia's aggression against Ukraine.

Right now, a large gray cloud hangs over the path towards world peace and security, and the outlook is seemingly obscure. However, one thing for certain is that creating the international order of tomorrow rests on the choices and actions of the people of today. Standing firm in its policies as a peace-loving nation, Japan resolutely continues to oppose any parties who attempt to forcibly change the world order. Japan also intends to continue demonstrating the strength of freedom and democracy and the significance of human rights and laws to the world through its unwavering conviction and tireless efforts.

To constantly defend Japan in a resolute manner and ensure continued regional and international peace and prosperity, as well as international order based on universal values, which has come to support this peace and prosperity thus far, the Ministry of Defense (MOD) and the Self-Defense Forces (SDF) will continue to decisively deal with any and all difficulties to push through this time of trial.

We hope that this white paper clearly explains to Japanese and international readers that the MOD and the SDF have the will and capability to achieve the above, in addition to helping further increase understanding of the environment surrounding Japan and the efforts of the MOD and the SDF.

FOCUS 1

Current

China's Civil-Military Fusion (CMF) and military "intelligentization"

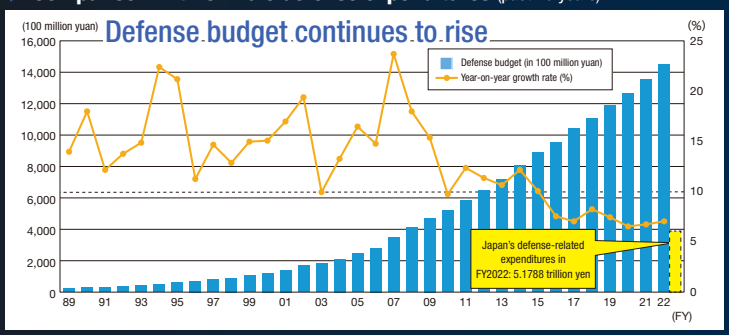
◆China is ramping up "Civil-Military Fusion" (CMF; the fusion of military and civilian resources), and intelligentization (use of AI, etc.), with the aim of building a "world-class military."*

*Although China has not defined what it means by "world-class military," it has been pointed out that China may be trying to develop military forces that are equal to—or in some cases superior to—the U.S. force.

Ballistic missiles believed to be capable of carrying a hypersonic glide vehicle [Avalon/Jiji Press Photo]

Chinese combat UAV TB-001 in flight between the main island of Okinawa and Miyakojima Island

Comparison with China's defense expenditures (past 10 years)



For over 30 years, China has been growing its defense budget at a high level and **rapidly improving its military power in qualitative and quantitative terms** with focus on nuclear, missile, naval and air forces, which is **raising strong concerns**.

China's indigenous aircraft carrier "Shandong" [Avalon/Jiji Press Photo]

Russia's aggression against Ukraine

◆Unilateral changes to the status quo by force shake the foundation of the entire international order, including Asia

Russia's continuing aggression against Ukraine since February 2022 is a serious violation of international law prohibiting the use of force. There are concerns that the effects of such unilateral changes to the status quo by force may extend to the Indo-Pacific region.

Russia's armored vehicles in Ukraine [SPUTNIK/Jiji Press Photo]

In addition to the use of military forces, Russia is believed to have used so-called "hybrid warfare" methods in its aggression against Ukraine, including cyber attacks on internet networks and disinformation campaigns. As for Ukraine, it is reported that political leaders are disseminating information and UAV operations are being conducted using satellite internet provided by U.S. companies.

Security Issues

Intensifying strategic competition between states

◇Responding to challenges to the international order has become a global issue

Strategic competition between states is intensifying in the context of the changing global balance of power. Such strategic competition is further complicated by factors such as China's broad and rapid military build-up, Russia's aggression against Ukraine, and cooperation between China and Russia, making the struggle for international order a global issue.

Countries increase investment in defense R&D

[CNP/Jiji Press Photo]

The U.S. has positioned economic security as a part of national security

Enactment of the Economic Security Promotion Act

[Jiji]

◇Scope of national security is rapidly expanding to economic and technological fields

Technological advancements are changing the features of warfare as AI-equipped drones conduct attacks and reconnaissance activities, and influence operations such as disinformation campaigns and information diffusion become more sophisticated.

The development, utilization, and management of various technologies, etc. have become policy focal points, based on the recognition that countries that gain an edge in emerging technologies critical to the economy and security will have an advantage in inter-state competition.

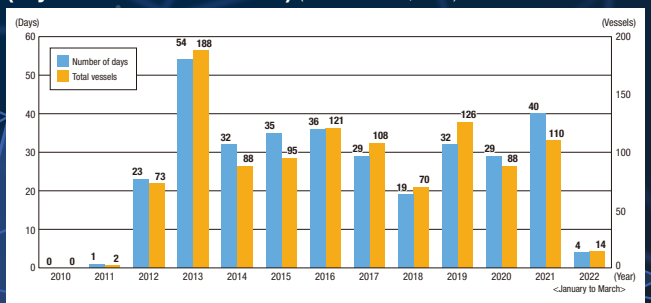
What will the future security environment be like in the Indo-Pacific region?

◇China is relentlessly continuing unilateral attempts to change the status quo by coercion near the Senkaku Islands. China is also pursuing unilateral changes to the status quo and the creation of faits accomplis in the South China Sea.

China abstained from voting on a UN resolution condemning Russia's aggression against Ukraine and has been strengthening coordination with Russia in recent years

Joint naval patrol by Chinese and Russian warships (October 2021)

Intrusions into the territorial waters surrounding the Senkaku Islands by China Coast Guard and other vessels (days and number of vessels) (as of March 28, 2022)



North Korea defends Russia. Throughout the aggression against Ukraine, North Korea has intensified provocations by repeatedly launching ballistic missiles, including ICBM-class missiles

Image published by the Korean Central News Agency announcing the launch of the "Hwasong-17" ICBM-class ballistic missile [EPA/Jiji]

FOCUS 2 "Deterrence"

Given the severe security environment described in FOCUS 1,
"Deterrence" is critical for both defending Japan and creating peace

◆ Deterrence:
The ability to discourage another country from aggression.

Deterrence is essential in preventing changes to the status quo backed by force.

- It is essential for inter-state and regional stability to have the necessary defense capabilities to discourage aggression and make other states understand that they cannot invade one's country.
- A strong alliance can bilaterally prevent aggression from other countries.
- Providing one country's deterrence capabilities to its allies and others is called "extended deterrence." For example, the U.S. provides Japan with extended deterrence through its various capabilities.
- A system of collective opposition (economic sanctions, military sanctions, etc.) to aggressor nations based on treaties, etc., can also serve as deterrence, and NATO is an example of this.

Missile interception

Strong Japan-U.S. Alliance

Examples of Japan's deterrence efforts

Aerial maneuvers training conducted by V-22 Osprey

Bilateral training with U.S. Air Force bombers

MSDF Exercise 2021 (ANNUALEX-21)

In order to fully exert Japan's defense capabilities, JSDF must continuously maintain and improve its tactical skills and response capabilities from peacetime, and training and exercise comprise one of the important elements in this regard. This will help to clearly demonstrate Japan's strong defense posture and firm intentions to defend itself, and will serve as deterrence to discourage other countries from aggression.

Fosters Peace

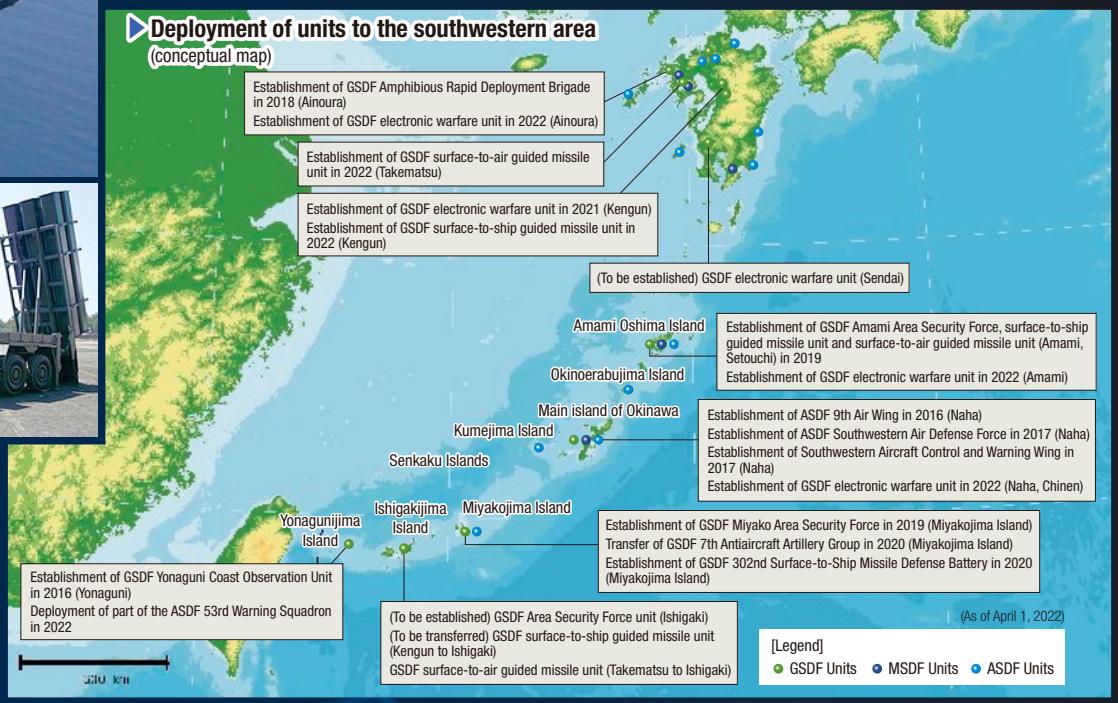
Strengthening Japan's Own Architecture for National Defense

◇Defense capabilities deter threats from reaching Japan by making opponents realize that doing harm to Japan would be difficult and consequential.

Air-to-air missile AIM-120 launched from an F-35

Type 12 surface-to-ship guided missile

In order to significantly reinforce its defense capabilities, Japan has prepared the FY2022 initial budget and the FY2021 supplementary budget together as one integrated "Defense Strengthening Acceleration Package."



Strengthening the Japan-U.S. Alliance

◇While Japan continues to actively and autonomously reinforce its defense capabilities, it is also strengthening cooperation in a wide range of domains, including space and cyberspace, to enhance the Japan-U.S. Alliance capabilities to deter and respond.

U.S. Marine F-35B landing on the MSDF destroyer JS "Izumo"

Japan-U.S. Defense Ministerial Meeting (May 2022)

FOCUS 3

Efforts in

Efforts in the space domain

◆Japan is fundamentally enhancing its capabilities in the space domain by reinforcing its space domain mission units, deepening cooperation with JAXA and the U.S., and promoting initiatives related to satellite constellations.

Establishment of the Space Operations Group

Promotion of training and equipment acquisition for the start of space situational awareness missions

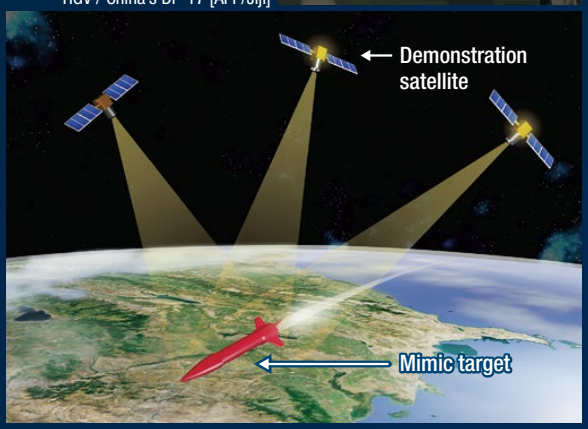
Space Situational Awareness (SSA) System to begin operations

JAXA optical telescope "Bisei" (coordination with JAXA)

MOD Space Situational Awareness Radar (image; planned to begin operating in FY2023)

Study on utilization of satellite constellations for missile defense

HGV / China's DF-17 [AFP/Jiji]



Demonstrative satellite device for HGV detection and satellite tracking (image)

*Satellite constellation: Method of operating a large number of small satellites together as a system to perform various functions

*HGV: Hypersonic glide vehicle; a hypersonic glide weapon that glides and maneuvers through the air at hypersonic speeds (Mach 5 or faster) to reach its target

Efforts in the cyber domain

◆Japan is fundamentally enhancing its cyber defense capabilities by reinforcing specialized units, participating in practical cyber defense exercises, and conducting personnel training.

Training of future personnel for system and cyber operations

Establishment of the System/Cyber Specialized course at the GSDF High Technical School

Establishment of the SDF Cyber Defense Command

Participation in the Locked Shields exercise organized by the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE)

[CCDCOE]

Holding a cyber security competition (organized by the GSDF) to strengthen cooperation with participating nations, including the U.S., France, and Australia

New Domains and Fields

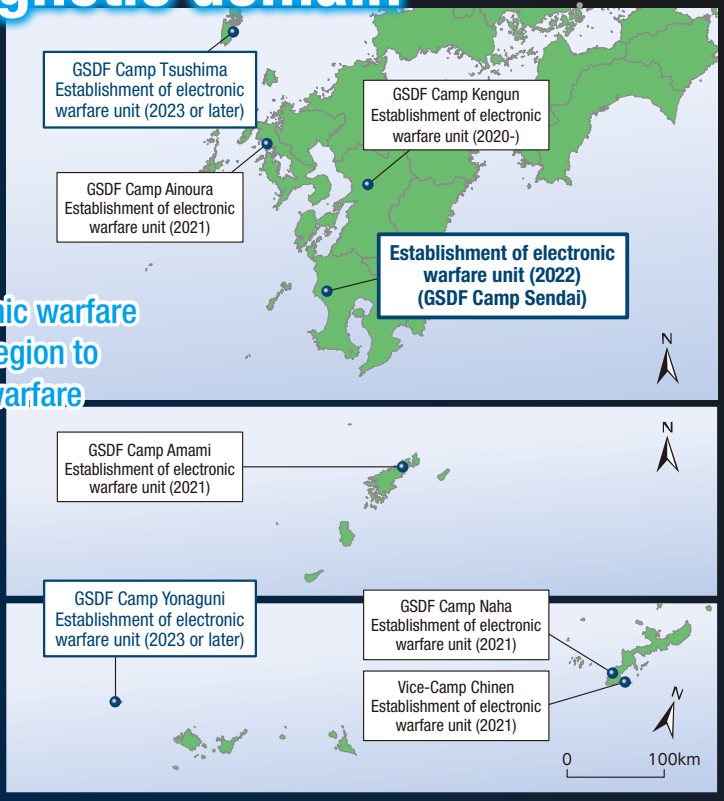
Efforts in the electromagnetic domain

◆Japan conducts collection and analysis of information from the electromagnetic spectrum under normal circumstances. Japan has established a system that can neutralize an opponent's use of the electromagnetic spectrum to gain an advantage in various types of operations in case of contingency.

Establishment of the Electronic Warfare Operations Unit

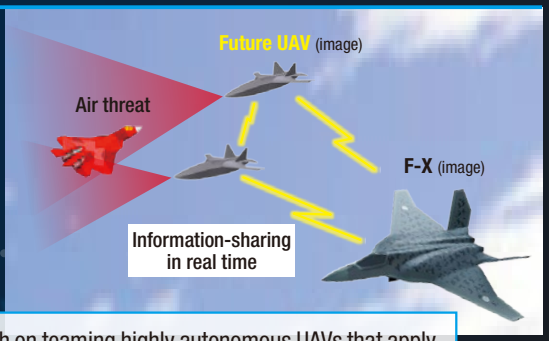
Japan will build electronic warfare units in the southwest region to enhance its electronic warfare capabilities.

Electronic warfare unit in operation



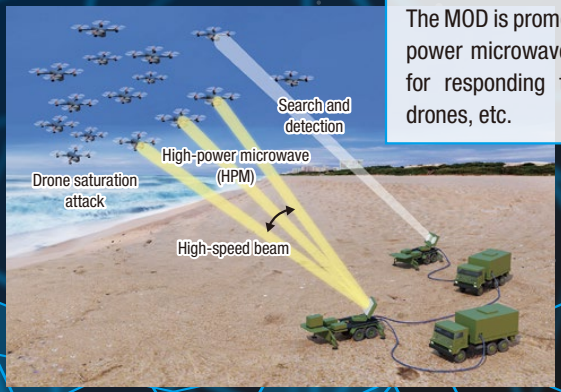
Efforts in the field of leading-edge technologies

◆The MOD is promoting various initiatives to gain an edge in advanced technologies and to link them to new styles of warfare.



The MOD is promoting research on teaming highly autonomous UAVs that apply artificial intelligence (AI) technology with manned aircraft such as F-X.

In order to counter threats such as hypersonic cruise missiles, the MOD is promoting research on railguns that can launch projectiles at high muzzle velocity in rapid succession using electromagnetic force.

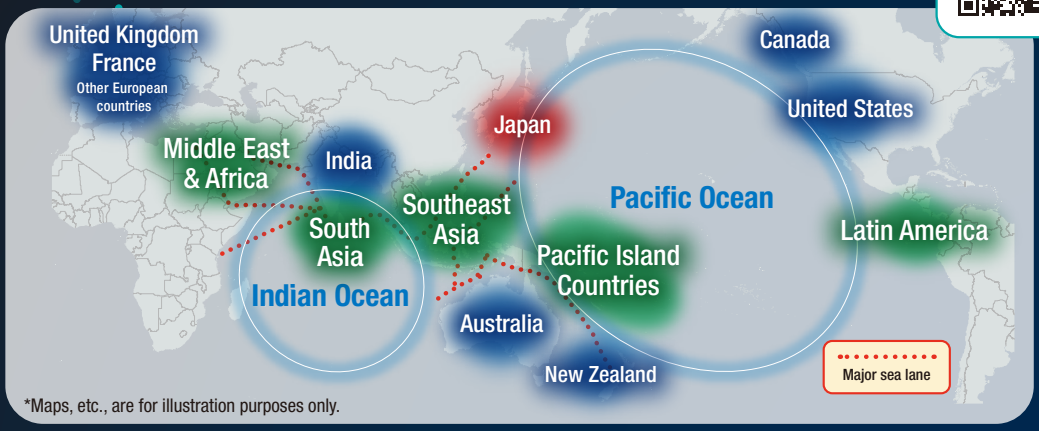


The MOD is promoting demonstrations of high-power microwave (HPM) related technologies for responding to saturation attacks using drones, etc.

FOCUS 4 Creation of a "Free and Open Indo-Pacific"

◇Japan is promoting security cooperation with other countries in order to create a desirable security environment for Japan.

See information on the MOD's initiatives related to the FOIP in nine languages.



*Maps, etc., are for illustration purposes only.

The Indo-Pacific region is the core of the world's vitality, and home to half the world's population. Major sea lanes pass through the region. The "Free and Open Indo-Pacific" (FOIP) vision is based on the concept of ensuring the peace and prosperity of the entire Indo-Pacific region and consequently the world by realizing a free and open order based on the rule of law in the region. The FOIP is an inclusive vision. Any country can cooperate as long as it endorses the concept.

Cooperation with Partners towards Upholding and Reinforcing the FOIP

Towards upholding and reinforcing FOIP with the Japan-U.S. Alliance as its cornerstone, MOD actively cooperates with many countries that share the FOIP vision and have connections to the Indo-Pacific region, including Australia, India, European countries such as the United Kingdom, France, and Germany, as well as Canada and New Zealand.

Meeting between the Chief of Staff, Joint Staff and Germany's Inspector General of the Bundeswehr

Japan-Germany 2+2 Meeting (video conference)

Meeting between the Chief of Staff, MSDF and Germany's Inspector of the Navy

The German navy frigate "Bayern" made a port call in Japan
The Chief of Staff, Joint Staff; Chief of Staff, GSDF; Chief of Staff, MSDF; and Chief of Staff, ASDF met successively with their respective German counterparts

Telephone discussion between the Chief of Staff, GSDF, and Germany's Inspector of the Army

Meeting between the Chief of Staff, ASDF, and Germany's Inspector of the Air Force

Countries and Regions Enhancing Cooperation towards Upholding and Reinforcing FOIP

With respect to countries and regions of the Indo-Pacific that key sea lanes pass through, such as Southeast Asian and South Asian countries, including ASEAN, and Pacific Island countries, as well as the Middle East, Africa and Latin America, which are important for ensuring energy security, Japan is bolstering cooperation towards upholding and reinforcing FOIP, while utilizing wide-ranging means of defense cooperation and exchanges.

First ministerial-level multilateral international conference held at the MOD

First-ever Japan Pacific Islands Defense Dialogue (JPIDD)

Commander of the Royal Cambodian Army visited Japan

Desirable Security Environment

Capacity building in the Indo-Pacific region

In light of the COVID-19 pandemic, capacity building was conducted using a hybrid approach, both in-person and online

Capacity building for the Philippines using ODA-donated equipment (lifesaving equipment) (HA/DR)

Participated in the "Hari'i Hamutuk" capacity building exercise for Timor-Leste organized by Australia

Provided advice and practical support to UNISFA participating troops on the packing of various goods

Capacity building for ASEAN nations conducted online (cybersecurity)

Major exercises in the Indo-Pacific region

* The map is for illustrative purposes.

Part I

Security Environment Surrounding

Overview

Chapter 1

Intensifying Inter-state Competition and Challenges to the Existing Order

As the balance of power changes, inter-state competition is becoming prominent across political, economic, military, and other realms. Foremost among these is the intensifying strategic competition between the U.S. and China, as well as the global issue of responding to challenges to the existing order, such as Russia's aggression against Ukraine. Such inter-state competition is constantly occurring through a variety of means, including social networks (SNS), and sometimes even through "hybrid warfare" that combines military and non-military measures.

In addition, technological advances are fundamentally changing the nature of security. Countries are focusing on developing and utilizing so-called game-changing technologies—cutting-edge technologies such as artificial intelligence (AI) and hypersonic technology—while at the same time recognizing the importance of economic security, such as preventing the outflow of such technologies. Science, technology, and innovation are at the core of intensifying inter-state competition.

U.S.-China virtual summit in September 2021 [AFP/Jiji]

Various Security Challenges Facing the Indo-Pacific Region

The Indo-Pacific region in which Japan is situated has been significantly affected by changes to the global balance of power and faces various security challenges. In particular, the tension between the U.S. and China is becoming more pronounced in Taiwan and the South China Sea.

In addition, in the Korean Peninsula, people have remained divided for more than half a century. In recent years, so called gray-zone situations have tended to persist for extended periods of time as a part of wars between nations, and have the risk of rapidly developing into more serious situations without any obvious signs.

A U.S. 7th Fleet destroyer transits through the Taiwan Strait [US NAVY]

Russia's aggression against Ukraine

Chapter 2

Unilateral Changes to the Status Quo by Force Shake the Foundation of the International Order, including Asia

Russia's aggression against Ukraine that began in February 2022 infringes upon the sovereignty and territorial integrity of Ukraine. It is a serious violation of international law prohibiting the use of force and of the UN Charter. Such unilateral changes to the status quo by force have shaken the very foundation of the whole international order, not only in Europe, but in Asia as well.

This is an unprecedented situation in which a permanent member of the UN Security Council, whose primary responsibility is maintaining international peace and security, is engaging in military actions that conflict with international law and order and is claiming the lives of innocent people. The international community, including Japan, must not tolerate this, since tolerating Russia's aggression may imply that unilateral changes to the status quo by force are acceptable in Asia and other regions.

As a result of the current aggression, it is possible that Russia's national power in the medium- to long-term may decline, and the military balance within the region and military cooperation with China may change. Furthermore, since the international situation could also be affected across the world, including developments in strategic competition between the U.S. and China and repercussions in Asia, it will be important to closely monitor related trends with intense interest.

Russian armored vehicles march in Ukraine [SPUTNIK/Jiji Press Photo]

Defense Policies of Countries

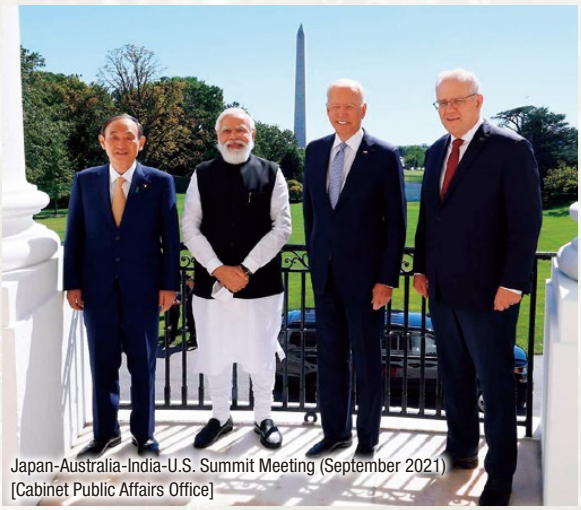
Chapter 3

U.S. Emphasis on Reinforced Competitiveness and Cooperation with Allies and Partners

The Biden administration has focused on reestablishing U.S. dominance and prevailing in strategic competition with China. In the National Defense Strategy Fact Sheet released in March 2022, the administration identified China as its most consequential strategic competitor and pacing challenge, to be addressed with the highest priority, followed by the Russia challenge.

The administration also outlined policies for reinforcing cooperation with allies and partners. In September 2021, the first face-to-face Leaders' Summit of the "Quad," consisting of Japan, the U.S., Australia, and India, was held, and AUKUS, a new security cooperation framework between Australia, the U.K., and the U.S. was established. In February 2022, the Biden administration also released its first regional strategy: the Indo-Pacific Strategy of the United States.

The FY2023 budget request announced in March 2022 emphasizes investments in integrated deterrence and other areas, while prioritizing investments in innovation including space, cyber, and AI, and modernization.



Japan-Australia-India-U.S. Summit Meeting (September 2021)
[Cabinet Public Affairs Office]

China Aims to Become a "World-Class Military" by Accelerating "Intelligentization" through Civil-Military Fusion (CMF), etc.

China is aiming to build a "world-class military" by the mid-21st century. For over 30 years, it has been growing its defense budget at high levels, engaging in rapid improvement of its military power in qualitative and quantitative terms with focus on nuclear, missile, naval and air forces. In summer 2021, China reportedly conducted a test launch of a hypersonic glide vehicle, which is considered more difficult to intercept, into low-Earth orbit. Related developments are being closely watched.

China is also believed to be aiming to build a "world-class military" by enabling "intelligentized warfare" through the use of AI and other means, by advancing as national strategy a Civil-Military Fusion (CMF) development strategy that aims to accelerate two-way transfer of military and civilian resources.

China is relentlessly continuing unilateral attempts to change the status quo by coercion near the Senkaku Islands, leading to a matter of grave concern. In October 2021, Chinese and Russian warships conducted joint sails that circled around Japan. This exercise seemed to have been intended as a show of force against Japan.

Chinese military trends, combined with insufficient transparency about China's defense policies and military affairs, have become a matter of grave concern to the region including Japan and the international community, and these trends have been intensifying in recent years.

General Secretary Xi Jinping delivers a speech during the celebration of the 100th anniversary of the founding of the Chinese Communist Party in July 2021
[China News Service/Jiji Press Photo]

Chinese navy warships (right), Russian navy warships (left), and a Z-9 helicopter onboard a Chinese navy Renhai-class destroyer (October 22, 2021)

Part I Security Environment Surrounding

Strategic Competition between the U.S. and China and Conflict over Taiwan

The Biden administration has positioned China as the "most serious competitor" challenging U.S. prosperity, security, and democratic values, and has made clear its stance to check China through cooperation with allies and partner countries. In addition, it has positioned economic security as national security, and is further bolstering its efforts to prevent the diversion of critical and sensitive technologies to strengthen China's military power. In response, China has enacted a series of countermeasure laws and regulations. Such strategic competition between the U.S. and China is having far-reaching international repercussions.

Meanwhile, the conflict between the two countries is also becoming prominent over Taiwan. In April 2021, the U.S. issued "New Guidelines" to encourage interaction with Taiwanese officials, demonstrating that the U.S. is committed to accelerating U.S. involvement in Taiwan. The U.S. continues to conduct U.S. warship transits through the Taiwan Strait and arms sales to Taiwan. On the other hand, in 2021, China further increased the number of Chinese military aircraft entering the airspace southwest of Taiwan and has announced that it is conducting field training in the sea and airspace around Taiwan.

In this situation, besides the U.S., countries in Europe and elsewhere have expressed their interest and concern in peace and stability in the Taiwan Strait. Taiwan is an extremely important partner for Japan, sharing the same fundamental values such as freedom and democracy. The stability of the situation surrounding Taiwan is also critical for Japan's security and must be closely monitored with a sense of urgency while cooperating with the international community, based on the recognition that changes to the status quo by coercion are globally shared challenges.

An F-16V (upgraded from A/B variant) fighter sold to Taiwan by the U.S. [Taiwanese Air Force]

President Tsai Ing-wen meets with visiting EU Parliament delegation [Taiwanese Ministry of Foreign Affairs]

North Korea Escalates Provocations against the International Community

North Korea is believed to already have the capability to attack Japan with ballistic missiles carrying nuclear weapons, and it continues to develop ballistic missiles at an extremely rapid pace. North Korea has launched a series of ballistic missiles with irregular trajectories and missiles that it calls "hypersonic missiles," while diversifying its capabilities to include rail-launched and submarine-launched missiles. Therefore, North Korea is believed to be focusing on improving its capability to breach missile defense networks. In addition, especially since the beginning of 2022, while the international community has been responding to the aggression against Ukraine, North Korea has repeatedly launched ICBM-class missiles and others at an extremely high frequency, unilaterally escalating provocations against the international community.

Such military activities in North Korea pose grave and imminent threats to Japan's security and significantly undermine the peace and security of the region and the international community. This pattern has only intensified in recent years, and may potentially lead to further provocative actions.

Image publicly released by North Korea when it announced the launch of short-range ballistic missiles from a rail-mobile launcher (September 2021) [Korea News Service/Jiji]

Russia's Adoption of a "Strong State" Model, and the China-Russia "Strategic Alliance"

Russia, which has adopted a "strong state" model, recognizes NATO's military and other activities in the vicinity of Russia as a threat. Having ensured that its nuclear capability rivals that of the U.S., the country has been accelerating the deployment of new weapons, such as planning the mass production and deployment of hypersonic cruise missile "Zircon" from 2022, and improving its asymmetric warfare capabilities through electronic warfare equipment and other measures. Russia had deployed Russian military forces in and around Ukraine since fall 2021, after asserting that it would not allow Ukraine and other former Soviet Union countries to become NATO members. Then, in February 2022, it launched a full-scale aggression against Ukraine.

In the vicinity of Japan, Russia has made moves to strengthen cooperation with China, such as through joint bomber flights and joint warship sails involving the Russian and Chinese militaries, as well as moves to portray such military cooperation as "strategic coordination." These trends warrant concern and must continue to be closely watched in the future.

China-Russia summit held in February 2022 [AFP/Jiji]

Trends Concerning New Domains including Space, Cyberspace, and Electromagnetic Spectrum, and Challenges Facing the International Community

Chapter 4

Science and Technology Developments and Their Impact on Security

As technologies rapidly develop, especially those originating in the non-military sector, their impact on security is attracting attention. For example, the use of technologies such as AI will further enable unmanned combat and armed forces with fewer personnel, and may also revolutionize the accuracy and speed of decision-making. Furthermore, there are already examples of methods for disrupting other countries through diverse means other than those relying on traditional military force, such as cyber attacks. In this regard, there is a possibility that gray-zone situations will increase and expand.

Given these trends, countries are increasing their investments in research and development (R&D) to secure a technological advantage, and are focusing on developing and utilizing technologies that could become namely game-changing technologies. In addition, they are taking measures from the perspective of so-called "economic security," such as increasing their self-sufficiency in technological development and production and making supply chains more resilient.

GJ-11 stealth unmanned combat aerial vehicle (China's 70th anniversary military parade) [SPUTNIK/Jiji Press Photo]

Increasing Importance of Space, Cyberspace, and Electromagnetic Domains

Space-based technologies and information and communication networks have become core infrastructures in people's everyday lives and for the military. On the other hand, China, Russia, and other countries are enhancing their capability to interfere with other countries' use of space, and these countries and their militaries are reportedly involved in cyber attacks. Thus, stable use of space and cyberspace has become an important issue for each country.

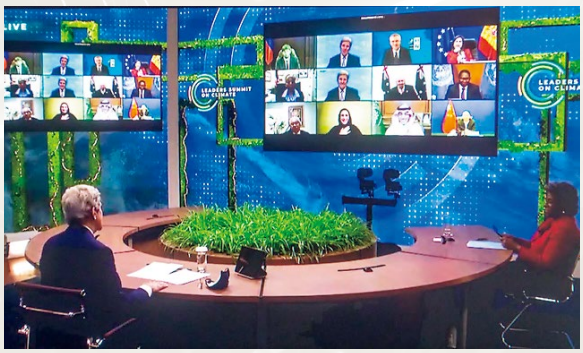
In addition, countries are working to improve their capabilities in space and cyberspace, along with their capabilities in the electromagnetic domain, under the recognition that these capabilities are methods of warfare that effectively deter enemies from demonstrating their war potential.

Russia's "Palantin" electronic warfare system [Ministry of Defence of the Russian Federation]

Climate Change Requires Response from the International Community

In recent years, there has been a recognition of the various effects of climate change on security. For example, it has been pointed out that climate change could undermine the stability of politically and economically vulnerable nations, which would increase the need for international assistance, including military operations, for these destabilized nations.

Climate change, which is also described as a "threat multiplier," thus requires a collective response from the international community.



Leaders Summit on Climate hosted by the U.S. (April 2021) [NATO]

Part II

Japan's Security and Defense Policy

Basic Concepts of Japan's Security and Defense

Chapter 1

Defense Capabilities Protect Japan's Independence, Peace, and Security

Peace and security are essential for Japanese people to live with a sense of safety and for Japan to continue to prosper, but simply wishing for these things is not enough to guarantee them.

Therefore, Japan ensures its peace and security by strengthening the Japan-U.S. alliance as well as its own defense capabilities, and by developing a seamless defense posture. Moreover, from the perspective of preventing the emergence of threats to Japan, the importance of the role played by defense capabilities is increasing in cooperative efforts in the Indo-Pacific region.

Recognizing the role of such defense capabilities, Japan ensures its peace and security by exerting efforts in a variety of fields, including diplomacy and the economy.

In addition, based on its Constitution, Japan has efficiently built a highly effective, integrated defense force in line with the basic principles of maintaining an exclusively defense-oriented policy and not becoming a military power that poses a threat to other countries, while firmly maintaining the Japan-U.S. Security Arrangements, adhering to the principle of civilian control of the military, and observing the Three Non-Nuclear Principles.

Prime Minister Kishida reviewing units at the FY2021 Troop Review for the Anniversary of the Establishment of the Self-Defense Forces

Japan's Security and Defense Policy

Chapter 2

Discussion of All Options for the Development of a New National Security Policy, etc.

The main documents pertaining to Japan's national security are the National Security Strategy (NSS), the National Defense Program Guidelines (NDPG), and the Medium Term Defense Program (MTDP).

In January 2022, Prime Minister Kishida Fumio announced that these documents were going to be newly formulated over the year, and they are currently under discussion among the relevant ministers. The Ministry of Defense (the MOD) established the Defense Strengthening Acceleration Council, chaired by the Minister of Defense. The Council discusses all manners of options to protect Japan's territory, territorial waters, territorial airspace, and the lives and property of its people.

The current NDPG and MTDP, which were formulated in 2018, call for the establishment of a "Multi-Domain Defense Force" that will enable cross-domain operations, including space, cyber and electromagnetic spectrum, as well as flexible and strategic operations at all stages ranging from peacetime to contingencies.

Defense Minister Kishi chairing a "Defense Strengthening Acceleration Council"

Organizations Responsible for Japan's Security and Defense

Chapter 3

The MOD and the Self-Defense Forces (the SDF) develop policies and execute missions based on the fundamental stance discussed at the National Security Council, which is a part of the Cabinet.

In addition, the MOD and the SDF employ an integrated operation system that operates the Ground, Maritime, and Air Self-Defense Forces in an integrated manner, and are working to build a system that can implement cross-domain operations, including operations in new domains such as space, cyber, and electromagnetic spectrum.

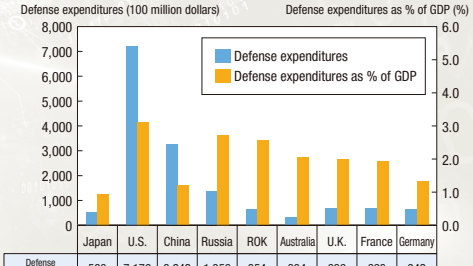
Build-up of Defense Capability, etc.

Chapter 4

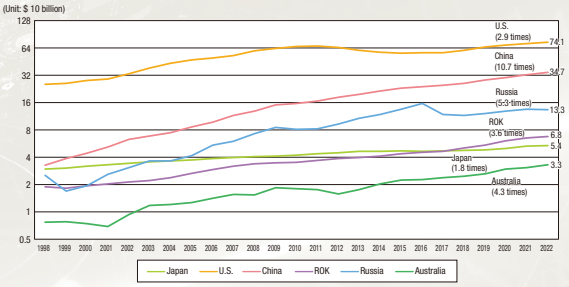
Accelerating the Reinforcement of Defense Capability

Given a situation in which the security environment around Japan is growing increasingly severe at an unprecedented pace, Japan needs to dramatically reinforce its defense capabilities. In order to do so, it has prepared the FY2022 annual budget and the FY2021 supplementary budget together as one integrated "Defense-Strengthening Acceleration Package." In addition, in order to secure technological superiority, Japan has decided to significantly increase investment in potentially game-changing technologies, and has increased R&D expenditure to a record high. The FY2022 annual budget is 5.1788 trillion yen, up 55.3 billion yen (1.1%) from the previous year, or 5.4005 trillion yen if funds related to the realignment of U.S. forces are included. Japan's defense expenditures have set a record for ten consecutive years.

It is not possible to accurately compare the amounts of defense expenditures of countries due to a number of factors: there is no internationally unified definition of defense expenditures in the first place; even if defense expenditures were publicly disclosed, their overall amount or their breakdown is sometimes unclear; and the budget system varies by country. On such basis, if Japan's defense-related expenditures are compared to the defense expenditures officially published by other countries, Japan has the lowest ratio of defense expenditures to GDP when compared to the G7 countries, Australia, and the Republic of Korea (ROK). In addition, Australia, the ROK, the U.K., France, and Germany all spend about two to three times as much on defense expenditure per person as Japan.



	Japan	U.S.	China	Russia	ROK	Australia	U.K.	France	Germany
Defense expenditures	530	7,176	3,242	1,356	654	304	689	668	642
Defense expenditures as % of GDP	0.95	3.12	1.20	2.73	2.57	2.05	1.99	1.92	1.31
(Reference) The percentage of GDP based on defense expenditures published by NATO	–	3.57	–	–	–	–	2.25	1.93	1.49
Defense expenditures per person (US$)	420	2,156	225	929	1,274	1,180	1,010	1,022	765
Defense expenditures per person (ten thousands yen)	4	21	2	9	12	11	10	10	7



Framework for Activities of the SDF and Others

Chapter 5

The 2015 Legislation for Peace and Security defined new situations to be addressed, such as "Survival-Threatening Situations" and "Situations that Will Have an Important Influence," enabling seamless response to any situation. The Government of Japan will continue to take all possible measures to respond to such situations.

In addition, based on experiences such as the evacuation of Japanese nationals from Afghanistan in August 2021, the Self Defense Forces law was amended in 2022 to remove the limitation that, in principle, the means of transportation must be a government aircraft, to change the safety requirements, and to expand the scope of evacuees.

Japan's Own Architecture for National Defense

Chapter 1

Irreplaceable Role of Defense Capability

Defense capability is the ultimate guarantor of Japan's national security. Defense capability represents Japan's will and ability: to deter threat from reaching Japan; to eliminate a threat should the threat reach Japan; and to defend to the end Japanese nationals' lives, persons and property as well as territorial land, waters and airspace as a sovereign nation, by exerting efforts on its own accord and initiative. In this sense, defense capability is not something that can be replaced by any other means.

In light of the increasingly severe and uncertain security environment surrounding Japan, Japan will build a Multi-Domain Defense Force as a truly effective defense capability. The Multi-Domain Defense Force will ensure the defense of the nation through cross-domain operations that organically integrate capabilities in all domains, including space, cyberspace and electromagnetic spectrum, generating synergy and amplifying overall capabilities, while at the same time enabling sustained conduct of flexible and strategic activities during all phases from peacetime to contingencies.

In addition, joint operations are extremely important for the SDF to coordinate organically and carry out its missions quickly and effectively.

Defense architecture (three pillars)

Response from Peacetime to Gray Zone Situations

In order to protect the peace and independence of Japan, the SDF has always been calmly dealing with acts that infringe Japan's sovereignty. As part of these efforts, the SDF conducts constant and continuous intelligence gathering, surveillance, and reconnaissance activities across the broad area surrounding Japan while striving to prevent the occurrence or escalation of situations by flexibly selecting deterrence measures and other approaches. During peacetime, the SDF conducts intelligence gathering and surveillance in Japan's territorial waters and airspace, as well as scrambles.

Maritime Self-Defense Force (MSDF) patrol aircraft conducting surveillance missions

Defense of Japan including its Remote Islands

Japan possesses numerous remote islands, and it must position SDF units that suit the security environment and deploy them according to the situation in order to defend Japanese nationals' lives and property, as well as its territory, and other various resources. If signs of a threat are detected, the SDF will maneuver and deploy units to areas expected to be invaded to block access and landing of invading forces.

Should any part of our territory be occupied, the SDF will retake it by employing all necessary measures to suppress the enemy with attacks from aircraft and vessels, and then the landing of GSDF forces.

Training for the defense of remote islands

Responses in the Domains of Space, Cyberspace and Electromagnetic Spectrum

The SDF will prevent interference with its activities in the space, cyberspace, and electromagnetic domains and promptly limit the extent of damage when such situations occur. In case of armed attack against Japan, the SDF will block and eliminate the attack by leveraging capabilities in space, cyber and electromagnetic domains.

With regard to the space domain, the MOD/SDF is building a space situational awareness system to ensure stable use of space and is improving its capability to gather information using the space domain. In the cyber domain, the SDF is implementing measures such as ensuring the safety of information systems and dealing with cyber attacks via specialized units. In the electromagnetic domain, the SDF is working to reinforce management, coordination, and information-gathering functions related to the electromagnetic spectrum.

SDF personnel engaging in space-related training

Response to Large-Scale Disasters

When disasters occur, the SDF works in collaboration with local governments, engaging in various activities such as the search and rescue of disaster victims, ships, or aircraft in distress, and medical treatment. In addition, the SDF carries out missions to evacuate Japanese nationals and others overseas.

SDF personnel engaging in life-saving activities

SDF Activities since Enforcement of Legislation for Peace and Security

Since the enforcement of Legislation for Peace and Security in 2016, various forms of preparation and trainings related to this legislation have been implemented. As an example of actual missions related to this, the SDF has provided asset protection for the U.S. Forces and other units in accordance with Article 95-2 of the Self-Defense Forces Law. In 2021, the SDF provided asset protection for the Australian Defence Force for the first time.

Japan-U.S. Alliance

Chapter 2

Japan-U.S. Security Arrangements as a Cornerstone for Japan's Security

The Japan-U.S. Security Arrangements based on the Japan-U.S. Security Treaty, together with Japan's own national defense architecture, constitute a cornerstone for Japan's national security. The Japan-U.S. Alliance, with the Japan-U.S. Security Arrangements as its core, plays a significant role for peace, stability and prosperity of not only Japan but also the Indo-Pacific region and the international community.

In order to ensure Japan's peace, security, and sovereignty within the current international community, Japan has maintained its peace and security, centered on the security arrangements with the world's dominant military power, the United States, with which it has strong economic ties and shares basic values such as democracy, respect for human rights, the rule of law, and a capitalist economy, as well as interests in maintaining the peace and security of the world.

Japan-U.S. Defense Ministerial Meeting (May 2022)

The NDPG states that, in order to enhance the ability of the Japan-U.S. Alliance capabilities to deter and respond, Japan will take all necessary measures to ensure Japan's peace and security in all stages from peacetime to contingencies as well as during disasters. For these purposes, Japan will further enhance various operational cooperation and policy coordination with the United States.

In particular, Japan will expand and deepen cooperation in: space and cyber domains; comprehensive air and missile defense; bilateral training and exercises; bilateral ISR activities; and bilateral flexible deterrent options. Japan will also promote the development and update of bilateral plans and deepen the Extended Deterrence Dialogue.

Furthermore, in order to create a desirable security environment including maintaining and enhancing a free and open maritime order, and with an eye on increasing the Japanese and U.S. presence in the Indo-Pacific region, Japan and the United States are conducting Japan-U.S. bilateral activities, such as defense equipment and technology cooperation, expansion of joint/shared use of U.S. and Japanese facilities and areas, and during this fiscal year, verification of F-35B take-off and landing to the MSDF's destroyer JS "Izumo."

While the presence of USFJ serves as deterrence, it is necessary to consider impacts of the stationing of the USFJ on living environments of the local residents and to make efforts in mitigating impacts in a way that applies to the circumstances of each region. In particular, the realignment of the USFJ is an extremely important initiative to mitigate the impacts on local communities, including those in Okinawa, while maintaining the deterrent capabilities of the U.S. Forces. Therefore, the MOD is advancing the realignment and making continued efforts to gain the understanding and cooperation of the local communities which host USFJ facilities and areas.

Japan-U.S. bilateral joint exercise (Keen Edge 22)

Verification of F-35B take-off and landing on the MSDF Destroyer JS "Izumo"

Security Cooperation

Chapter 3

Strategic Promotion of Multi-Faceted and Multi-Layered Defense Cooperation

The MOD/SDF are promoting bilateral and multilateral defense cooperation and exchanges under the vision of a Free and Open Indo-Pacific (FOIP). The MOD has shared serious concern about the situations in the East and South China Seas with these countries, issuing clear messages to strongly oppose unilateral changes to the status quo by coercion and such attempts to create faits accomplis.

With respect to Southeast Asia, South Asia, Pacific Island countries, the Middle East, Africa, and Latin American countries, the MOD/SDF will enhance cooperation to uphold and reinforce FOIP, utilizing a wide range of means for defense cooperation and exchanges, including cooperation and exchange of personnel, cooperation and exchange of troops, capacity building cooperation, and defense equipment and technology cooperation.

The United States, Japan's ally, and Australia, India, as well as the United Kingdom, France, Germany, and other European countries, Canada, and New Zealand, are countries that not only share fundamental values with Japan, but also have geographic and historical ties to the Indo-Pacific region. The MOD/SDF has been encouraging these countries to

High-level exchange (Japan-U.K. Defense Ministerial Meeting)

become more involved in the Indo-Pacific region while promoting defense cooperation and exchanges, so that greater impact can be achieved when working together as partners in the region than could be achieved through unilateral efforts by Japan.

In the space and cyber domains, the MOD/SDF is also reinforcing coordination and cooperation with concerned countries through information-sharing, discussions, exercises, and capacity-building, in order to quickly gain superiority and establish international norms in these domains.

Ensuring Maritime Security

Ensuring the safety of maritime traffic is fundamental to the peace and prosperity of Japan. The SDF has been dispatching the Deployment Surface Force for Counter Piracy Enforcement and the Deployment Air Force for Counter Piracy Enforcement since 2009 in order to protect vessels from acts of piracy in the waters off the coast of Somalia and in the Gulf of Aden.

Initiatives for Arms Control, Disarmament and Non-Proliferation

Japan also actively participates in international initiatives for arms control, disarmament, and non-proliferation pertaining to WMDs, missiles that can deliver them, conventional arms, and goods and sensitive technologies that can be delivered to military use.

Efforts to Support International Peace Cooperation Activities

The MOD/SDF has been proactively undertaking international peace cooperation activities working in tandem with diplomatic initiatives, including the use of the Official Development Assistance (ODA) for resolving the fundamental causes of conflicts, terrorism and other problems. It has been 30 years since the International Peace Act was enacted.

As a part of its international peace cooperation, the MOD/SDF has dispatched headquarters personnel to Multinational Force and Observers Mission (MFO; Sinai Peninsula, Egypt) and the United Nations Mission in South Sudan (UNMISS). In addition, SDF personnel and civilians have been continually dispatched to the UN Secretariat.

The MOD/SDF has also been carrying out international disaster relief operations from the perspectives of making humanitarian contributions and improving the global security environment. In January 2022, the SDF transported disaster relief supplies to the Kingdom of Tonga, which had been suffering from the damage of a large-scale volcanic eruption.

Capacity building (Papua New Guinea)

SDF personnel engaging in operations of UNMISS

International disaster relief for Tonga

Measures Relating to Training and Exercises

Chapter 1

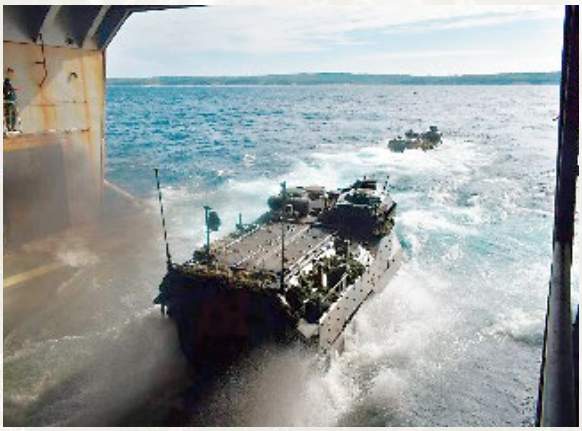
Training to Enhance the Deterrence and Response Capability

In order to fulfill its severe mission of defending Japan, the SDF has been continuously conducting joint training and various types of training involving the GSDF, MSDF, and ASDF from peacetime. These exercises range over not only traditional domains, but also new domains including space, cyberspace and electromagnetic spectrum. The SDF has been making efforts to improve cross-domain operations in order to successfully utilize these domains and enhance defense capabilities.

In addition, in order to enhance the deterrence and response capabilities of the Japan-U.S. Alliance, each service of the SDF conducts bilateral/multilateral training with the corresponding U.S. military branch, as well as Japan-U.S. bilateral joint exercises, deepening the content year after year.

Furthermore, in order to strategically promote multi-faceted and multi-layered defense cooperation based on the vision of a Free and Open Indo-Pacific (FOIP), the SDF is actively engaged in bilateral training and exercises with allies and friendly nations in the broad Indo-Pacific region.

In order to protect Japan's peace and sovereignty in an increasingly severe security environment, the SDF must become more powerful on its own while improving its ability to coordinate with allies and partners. For this reason, the SDF is not content with its current deterrence and response capabilities and is working to acquire further deterrence and response capabilities.



A GSDF amphibious vehicle departs from the MSDF Landing Ship JS "Osumi" (SDF joint exercise)

Training to Strengthen Partnerships

The MOD/SDF recognize that it is indispensable for our eternal peace to stabilize the security environment surrounding Japan while reinforcing its deterrence and response capabilities. Based on such recognition, the MOD/SDF is actively promoting bilateral/multilateral training with allies and partners in the broad Indo-Pacific region. Through strengthening such partnerships, the MOD/SDF is working to enhance cooperation in order to respond to global security challenges and destabilizing factors, which are difficult for one nation to overcome individually.

Japanese and U.S. commanders converse at the start of an exercise (Japan-U.S. Bilateral Regional Army command post exercise (YS-81))

Flight training by Japanese, U.S., and Australian fighters (multilateral exercise Cope North 22)

Three U.S. and U.K. aircraft carriers with the MSDF destroyer JS "Ise" (Japan-U.S.-U.K.-Netherlands-Canada-New Zealand multilateral exercise)

Reinforcing the Human Resource Base and Intellectual Base

Chapter 2

Self-Defense Forces Personnel Are a Core Element of Defense Capability (Reinforcing the Human Resource Base)

The core element of defense capability is Self-Defense Forces (SDF) personnel, and securing human resources for SDF personnel and improving their ability and morale are essential to strengthen defense capability. This has become an imminent challenge in the face of Japan's shrinking and aging population with a declining birthrate. From the perspective of the sustainability and resilience of defense capability, the MOD/SDF is working on measures to recruit/employ, train and effectively utilize existing human resources of the SDF personnel. The MOD/SDF is also actively promoting work-life balance and the participation of women.

Active participation of female SDF personnel (in the midst of basic amphibious vehicle training)

Powering Future Defense Policy (Reinforcing Intellectual Infrastructure)

In order to promote public understanding of security and crisis management, the MOD's research and educational institutes are further improving research quality on a day-to-day basis and are reflecting the results in Japan's policymaking.

Based on the results of such research, further promoting public understanding of knowledge and information about Japan's national security policies has become critical. For this reason, the MOD is reinforcing the research teams at the National Institute for Defense Studies (NIDS) and other research institutes.

National Institute for Defense Studies

Enhancement of Medical Functions

Chapter 3

Protecting the Lives of Self-Defense Forces Personnel as Much as Possible

For the MOD/SDF to perform its mission, it is necessary to appropriately manage the health of their personnel and ensure they remain in good health. The MOD/SDF is working steadfastly to enhance and strengthen their capabilities in military medicine to maximize the protection of the lives of personnel who respond to a variety of situations.

For this reason, the MOD/SDF has decided to strengthen the medical treatment and evacuation posture, which operates seamlessly from the frontline to final evacuation destination, and is working on developing SDF hospitals into medical hubs and enhancing their functionality. In FY2021, the SDF Iruma Hospital opened as part of these efforts.

As the SDF's missions become more diverse and internationalized, the SDF aims to appropriately meet the needs of various medical activities, such as medical support in disaster relief and international peacekeeping activities, and capacity building in the medical field. In order to strengthen the human infrastructure that forms the foundation of SDF medical services, the SDF is reinforcing the functions of the National Defense Medical College and securing and training medical and nursing personnel.

Meanwhile, as part of measures against the coronavirus disease (COVID-19) in Japan, the SDF not only accepted patients at SDF hospitals, but also set up and managed SDF large-scale vaccination centers in Tokyo and Osaka from May to November 2021 and has opened SDF vaccination sites from January 2022, in order to accelerate COVID-19 vaccinations.

SDF Iruma Hospital

Personnel working at a SDF large-scale vaccination center

Measures on Defense Equipment and Technology

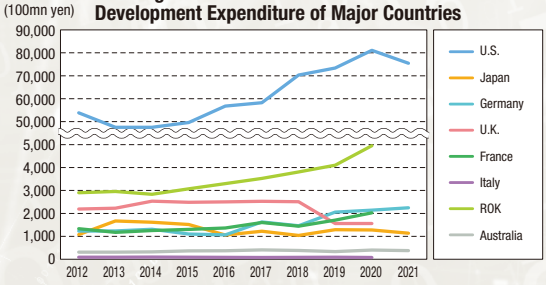
Chapter 4

Advances in Technology That Are Changing the Future Combat Landscape

Military technologies in recent years are showing remarkable advances. Against the backdrop of such technological advances, contemporary warfare increasingly features capabilities combined across all domains: not only land, sea and air but also new domains, such as space, cyberspace and electromagnetic spectrum. Aiming to improve overall military capability, states are seeking to gain superiority in technologies that undergird capabilities in these new domains.

Countries are expending large amounts of R&D funds to develop and research weapons that utilize potentially game-changing, cutting-edge technologies such as AI (artificial intelligence), and are working on their early operationalization. Further technological innovations in quantum technology and information and communications technology (ICT) , including the 5th generation mobile communication system (5G), will make it even more difficult to forecast future warfare.

Changes in Defense-Related Research & Development Expenditure of Major Countries



Source: "OECD: Main Science and Technology Indicators"

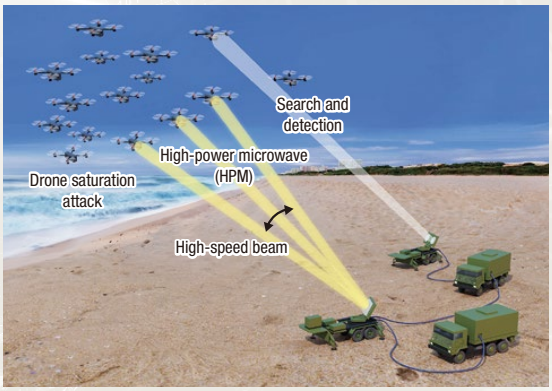
Notes: 1. For the calculation of Defense-Related Research & Development Expenditure of Major Countries, the ratio of research & development expenditure to defense expenditure of major countries from the "OECD: Main Science and Technology Indicators" data was used. However Chinese data was not published.
2. The figures are from statistics of the OECD. Special attention is needed when comparing various countries only with this data, because their definitions may vary in each country.

Status of Research & Development in Japan and Future Focus

Imports of foreign-made equipment remain at a high level as equipment has become more sophisticated and complex. In addition, introducing equipment whose unit costs have skyrocketed as a result of increasingly sophisticated technology has led to a decline in procurement volume from domestic companies, despite the increased spending on domestic procurement in recent years. For these reasons, Japan's defense industry and technology infrastructure are under severe pressure.

Under these circumstances, in order to secure "quality" and "quantity" of defense capabilities necessary and sufficient for building a Multi-Domain Defense capability, it is essential to 1) effectively and rationally review the equipment structure from the perspective of integrated operations, including manpower saving and automation; 2) strengthen the technology base through strategic initiatives, promotion of R&D, and active utilization of civilian technologies, in order to ensure Japan's technological edge; 3) optimize equipment procurement to contribute to more efficient acquisition of equipment and a structured management system, in response to the trend of rising costs due to increasingly sophisticated and complex equipment; 4) increase the resilience of the industrial base to ensure production of high-performance equipment and high operational availability; and 5) engage in defense equipment and technology cooperation based on the Three Principles on Transfer of Defense Equipment and Technology.

In tandem with efforts 1) through 5), it is extremely important for the MOD to actively cooperate in 6) economic security that the Japanese government as a whole is intensively promoting with security expertise from the perspective of enhancing the autonomy of Japan's economy, the superiority of Japan's technologies over other countries, and eventually the indispensability to the international community.



R&D involving cutting-edge technology (HPM irradiation technology)

Provision of Equipment and Goods to Ukraine

In response to the Russia's aggression against Ukraine, and based on a request from the Ukrainian government, Japan provided non-lethal equipment and goods to Ukraine based on the Self-Defense Forces Law and within the scope of the Three Principles on Transfer of Defense Equipment and Technology.

Development of Type 12 Surface-to-Ship Missile (Upgraded) [Nagoya Guidance & Propulsion Systems Works, Mitsubishi Heavy Industries, Ltd.]

Enhancing Intelligence Capabilities

Chapter 5

Efforts to Promptly Gather Various Types of Intelligence, etc.

For formulating defense policy accurately in response to the changes in the situation and for operating defense capabilities effectively in dealing with various situations, it is essential to grasp medium- to long-term military trends in the neighboring countries of Japan and detect the indications of various situations promptly.

To achieve this, the MOD is gathering the following types of intelligence.

(1) Collecting, processing, and analyzing military communication radio waves, electronic weapons, and other radio waves transmitted in the airspace over Japan

(2) Collecting, processing, and analyzing of image data from various satellites

(3) Warning and surveillance by warships and aircraft

(4) Collection and organization of various types of published information

(5) Information exchange with defense agencies and other organizations in various countries

(6) Intelligence-gathering by defense attachés

As of April 1, 2022, 73 defense attachés have been dispatched to 86 embassies and 6 missions and delegations.

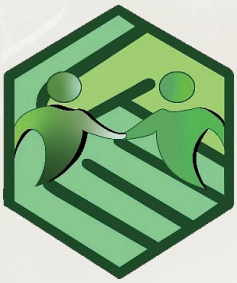
Defense attaché working in Ukraine

Initiatives to Live in Harmony with Regional Society and the Environment

Chapter 6

Harmony with Regional Society

The various activities of the MOD/SDF are hard to implement without the understanding and cooperation of each and every person, as well as local governments and other organizations. Based on this idea, the MOD/SDF will continue to promote various measures necessary in order to further deepen the trust between regional society and people, and the SDF.



MOD emblem symbolizing cooperation between the MOD and regional society

Efforts to Address Environmental Issues

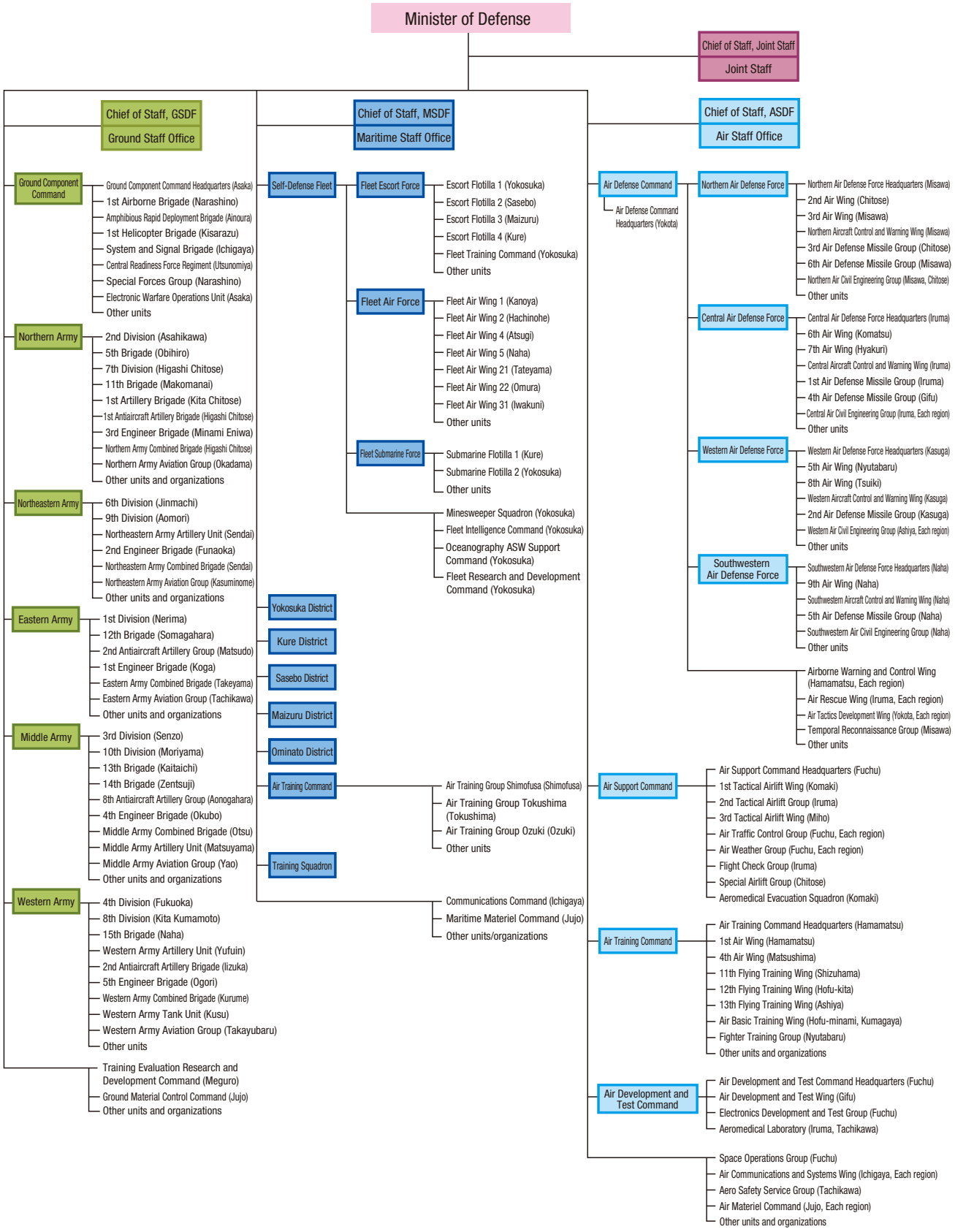
The MOD/SDF have consistently complied with environmental laws and regulations and have made efforts to thoroughly protect the environment and reduce environmental impact, and are promoting further environmental initiatives. In May 2021, the MOD established the MOD Climate Change Taskforce, chaired by the State Minister of Defense, to evaluate and analyze the impact of climate change on Japan's security and extensively study how the MOD can fulfill its assigned missions and roles. Going forward, the Taskforce will compile a strategy document for the MOD.

A discussion by the Climate Change Taskforce

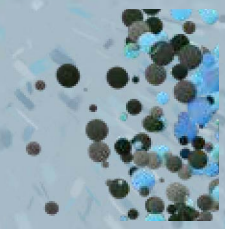
Public Relations Activities

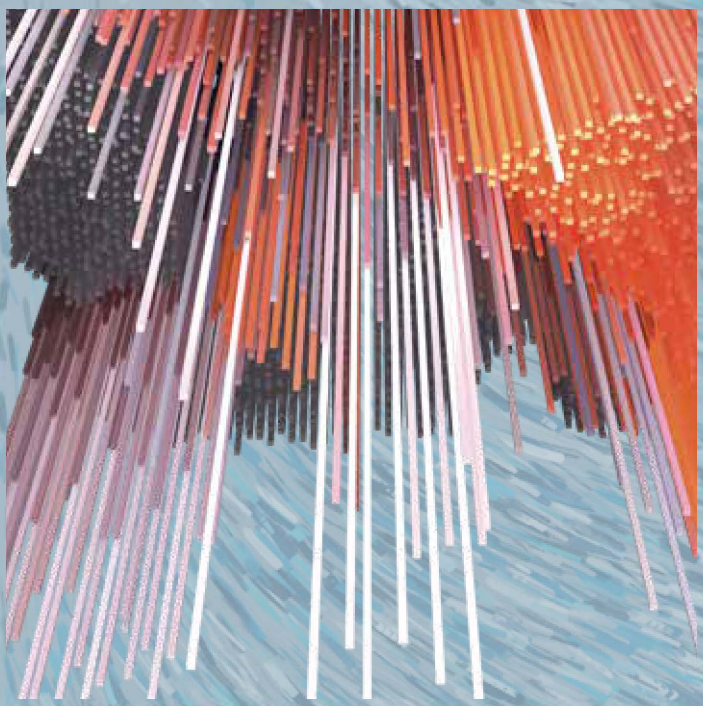
In order to gain the trust and the cooperation from the Japanese people and other countries, the MOD/SDF strives to be proactive in undertaking easily comprehensible public relations activities regarding its operations in various ways.

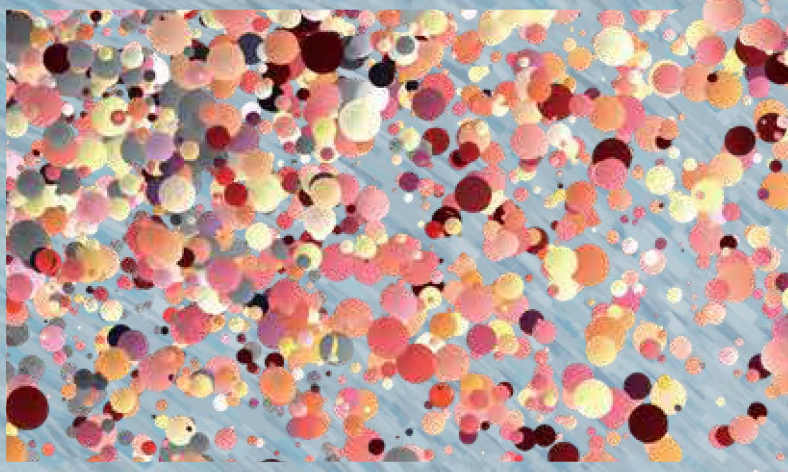
Organizational Diagram of the Self-Defense Forces

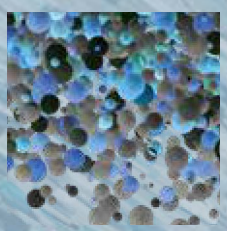


Location of Principal SDF Units [for illustrative purposes] [As of March 31, 2022]









防衛省・自衛隊
MINISTRY OF DEFENSE