

2021

DEFENSE OF JAPAN

Pamphlet



On the Publication of Defense of Japan 2021



岸信夫

Minister of Defense
KISHI Nobuo

In the year 2020, not only did the entire world face unprecedented difficulties due to COVID-19, but various security challenges and destabilizing factors became more tangible and acute, and the international order based on universal values, which has underpinned the peace and prosperity of the international community, has been greatly tested.

Looking at the situation around Japan, China has continued its unilateral attempts to change the status quo in the East and South China Seas. China Coast Guard (CCG) vessels are sighted almost daily in the contiguous zone surrounding the Senkaku Islands, an inherent part of the territory of Japan, and repeatedly intrude into Japan's territorial waters. Furthermore, there have also been incidents of CCG vessels approaching Japanese fishing boats while intruding into Japanese territorial waters, further making the situation serious. Against this backdrop, China entered into force the China Coast Guard Law in February 2021. The CCG Law includes problematic provisions in terms of their inconsistency with international law. Sources of inconsistency include, among others, ambiguity as to geographical areas the CCG Law applies and how the rules governing the use of weapons are implemented. The CCG Law must not be allowed to infringe on the legitimate interests of the relevant countries including Japan. Furthermore, the raising of tensions in the East China Sea and other sea areas is completely unacceptable.

In addition, North Korea is proceeding with ballistic missile development at an extremely rapid pace. It launched ballistic missiles of a new type in 2021, and such military trends, including nuclear and missile development, pose grave and imminent threats to Japan's security.

The Indo-Pacific region is the core of the world's vitality, and at the same time, it faces various security challenges. In the midst of the changing global power balance, the importance of the region

is further increasing. In order to counter these challenges in the security environment, it is essential not only to strengthen Japan's own defense capabilities and expand the roles we can fulfill, but also to closely cooperate with countries that share the same fundamental values.

In particular, cooperation with the United States, our only ally, is of paramount importance. Since the new U.S. administration took office, I have continued to pursue close bilateral cooperation through a defense ministerial meeting, the Japan-U.S. "2+2" meeting, and other opportunities. I also believe that the fact that the Japan-U.S. Summit Meeting was held as the first face-to-face meeting with foreign leader since the President Biden's inauguration testifies that the United States also attaches great importance to the Japan-U.S. Alliance. The Alliance is the cornerstone of peace, security, and prosperity in the region, and we will strive to further strengthen its deterrence and response capabilities in order to further solidify the unshakable bond of the Japan-U.S. Alliance.

Furthermore, Japan is promoting the "Free and Open Indo-Pacific" (FOIP) vision, based on the concept that achieving a free and open rules-based order will enhance peace and prosperity across the entire region and throughout the world. The MOD/SDF will further contribute to the peace and stability of the region and the international community through active cooperation with countries that share Japan's vision of the FOIP, including not only the United States as our ally, but also Australia, India, European countries including the United Kingdom, France, and Germany, as well as Canada and New Zealand.

With every step taken along the path of a peace-loving nation, Japan has become a country that proudly flies the flag of universal values, such as freedom, democracy, the rule of law, and respect for fundamental human rights. As the flag bearer of universal values in the Indo-Pacific region, joining hands with like-minded partners, we must cherish freedom, have faith in democracy, be deeply resentful at the failure to protect human rights, and resolutely oppose to any attempt to change the order by coercion. SDF personnel perform their demanding duties every day with this determination to protect the nation of Japan, including these values that have taken root deep in the hearts and minds of our people.

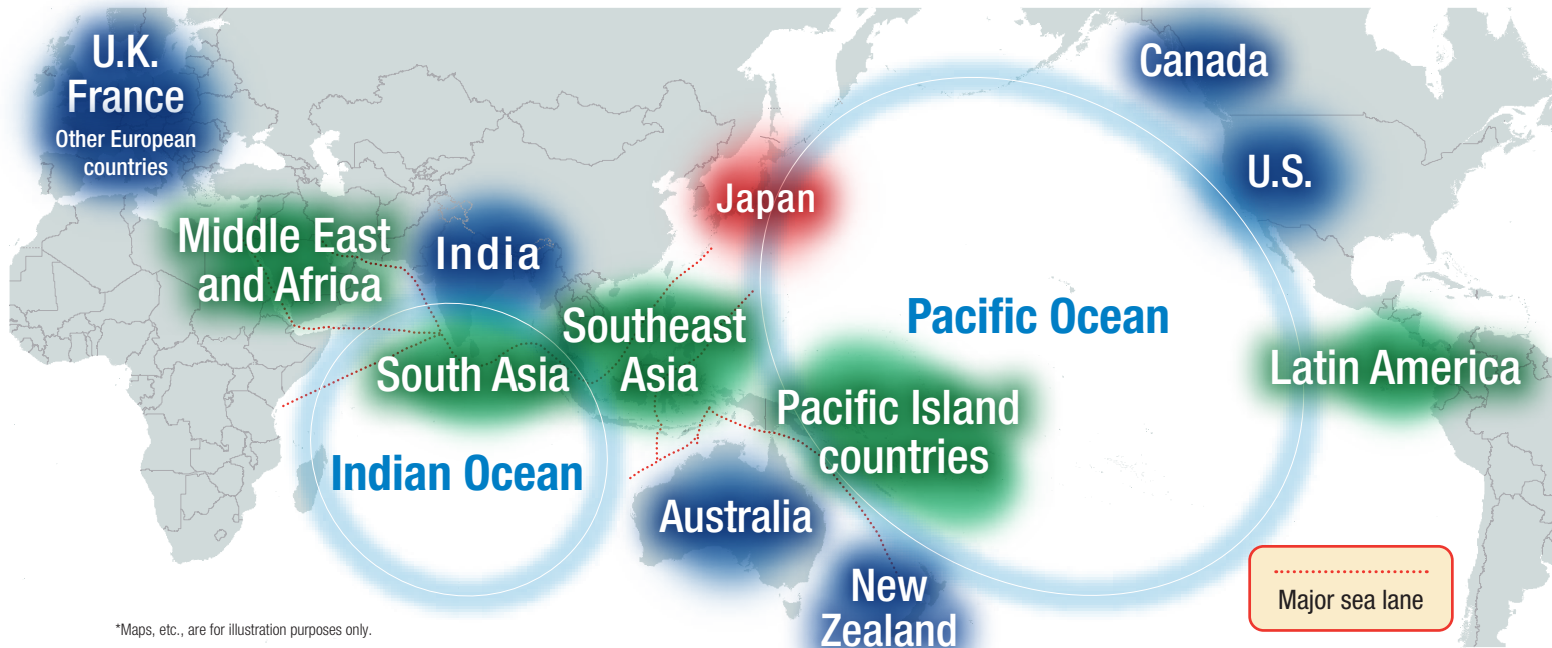
This white paper firmly demonstrates to readers not only at home, but also abroad that the MOD/SDF have unwavering will and ability to defend Japan even in the midst of a drastically changing security environment, alongside showing the high level of transparency regarding the activities and efforts of the MOD/SDF.

The MOD/SDF will diligently engage in our duties on the front lines of national defense at all times, boldly fulfilling our responsibilities to safeguard lives and peaceful livelihoods of our people, and the integrity of our territory, waters, and airspace, and will do our utmost to ensure the peace, stability, and prosperity of the region and the international community.



Defense Chronology

Free and Open Indo-Pacific



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 rooted in 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.



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

Continuation of Defense Cooperation and Exchanges Amidst the Spread of COVID-19

Although in-person visits to various countries have become difficult since the spread of COVID-19, defense cooperation and exchanges have been actively conducted through methods such as high-level telephone talks and video teleconference, bilateral/multilateral maritime exercises which do not involve contact with other people, and capacity building through online education. It has been pointed out that strategic competition may become more exposed and intense among countries intending to create international and regional orders more preferable to themselves and to expand their influence. Japan will promote defense cooperation and exchanges to uphold and reinforce FOIP in cooperation with other nations with which we share values and interests.



Cooperation with Partners towards Upholding and Reinforcing FOIP

Towards upholding and reinforcing FOIP with the Japan-U.S. Alliance as its cornerstone, Japan 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.



Japan-U.S.-India-Australia Multilateral Exercise "Malabar 2020" (November 2020)

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.





Defense Chronology

Movements by the China Coast Guard

Activities by China Coast Guard Vessels around the Senkaku Islands

China is continuing and strengthening its unilateral attempts to change the status quo by coercion near the Senkaku Islands, an inherent territory of Japan, which is a situation that raises strong concerns. From April to August 2020, China Coast Guard vessels were confirmed to be within the contiguous zone near the Senkaku Islands for a record of 111 consecutive days. In addition, over the course of 2020, activities by China Coast Guard vessels within the contiguous zone near the Senkaku Islands were confirmed to have been conducted on 333 days by a total of 1,161 vessels, which were both all-time highs.



A 10,000-ton class Coast Guard Vessel, the largest of its kind in the world [The Japan Coast Guard]



General Secretary Xi Jinping attending the 5th plenary session of the 19th Central Committee of the Communist Party of China in October 2020 [China News Service/Jiji Photo]



[Website of the Cabinet Secretariat website] The Senkaku Islands, an inherent territory of Japan

2021.02

The Coast Guard Law of the People's Republic of China (Coast Guard Law), which stipulates the responsibility of the Coast Guard and its the Coast Guard's responsibilities and authority including the use of weapons, was newly enacted in January 2021 and entered into force in February 2021. The Coast Guard Law includes problematic provisions in terms of their inconsistency with international law. Sources of inconsistency include, among others, ambiguity as to geographical areas the Coast Guard Law applies and how the rules governing the use of weapons are implemented. The Coast Guard Law must not be allowed to infringe on the legitimate interests of the relevant countries including Japan. Furthermore, the raising of tensions in the East China Sea and other sea areas is completely unacceptable.

Entry into Force of China Coast Guard Law



See a summary of the Coast Guard Law of the People's Republic of China.



China Coast Guard vessels [The Japan Coast Guard]

North Korea's Nuclear and Missile Development

At the 8th Congress of the Korean Workers' Party (KWP) held in January 2021, Chairman Kim Jong-un of North Korea spoke about the further enhancement of nuclear and missile capabilities, referring to the advancement of nuclear technology, including the development of "tactical nuclear weapons," and preemptive and retaliatory nuclear strike capabilities, as well as development of "hypersonic gliding flight warheads" and so on.

In addition, the military parades in October 2020 and January 2021 featured a possible new ICBM-class ballistic missile, a possible new SLBM, and new ballistic missiles mounted on a five-axle TEL. Of these, the new ballistic missiles mounted on a five-axle TEL were launched in March 2021.



A possible new ICBM-class ballistic missile that appeared at a military parade in October 2020 [EPA/Jiji]



A new ballistic missile that appeared at a military parade in January 2021 (launched in March 2021) [AFP/Jiji]



A possible new SLBM that appeared at a military parade in January 2021 [EPA/Jiji]

Defense Chronology

Japan-U.S. Alliance

In the United States, President Biden was inaugurated in January 2021. As the security environment rapidly becomes increasingly severe, the Japan-U.S. Alliance has become more important than ever for regional peace and security. Japan and the United States affirmed that the Japan-U.S. Alliance will continue to be the cornerstone of peace, security and prosperity in the Indo-Pacific region, and renewed their unwavering commitment to the Alliance.



[The U.S. Department of State]



The Japan-U.S. Summit Meeting
[Twitter account of the Prime Minister's Office of Japan]



The Japan-U.S. "2+2"



The Japan-U.S. Defense Ministerial Meeting



Japan-U.S. Bilateral Exercises

Response to COVID-19



Training on how to put on and take off protective clothing against infections

In order to prevent the spread of COVID-19, the MOD/SDF gathered all its strength to carry out various activities including disaster relief operations in 35 prefectures.

In addition, in order to accelerate the administering of COVID-19 vaccinations, the SDF opened up large-scale vaccination centers in Tokyo and Osaka, and is currently conducting vaccinations.

Dispatch of nurses and other personnel to medical institutions



Reference:
Efforts by the MOD/SDF in response to the spread of COVID-19



Video introducing the SDF's standards for preventing infectious disease



Disinfection of the medical equipment around beds

Transport of patients infected with COVID-19 by CH-47 from Yakushima Airport to Kagoshima City



Inside an aircraft during transport



Vaccinations at an SDF large-scale vaccination center



Large-scale vaccination center

Chronicle of Disaster Relief Operations

Lessons from the Great East Japan Earthquake

Strengthening the Joint Operational Posture

In 2015, the Bureau of Operational Policy was abolished and the functions of the Joint Staff were strengthened in order to centralize the operations of the SDF. In 2018, the Ground Component Command was newly formed to assume unified command over GSDF troops.



Joint transport in Sendai

Cooperation with related organizations, etc.

The MOD/SDF participates in the emergency team of the Prime Minister's Office and contributes to the government's unified decision-making. Liaison personnel are also dispatched to the local emergency headquarters in the disaster areas, the emergency headquarters of related companies, and others to grasp local needs.



General meeting at J-Village

Centralized transport of goods

The MOD recommended that the Government's Emergency Response Headquarters should conduct centralized management, including grasping the needs of municipalities and determining transport priorities, in order to quickly transport relief supplies to disaster areas. Currently, the Cabinet Office's emergency supplies procurement and transportation system for disaster management is centrally managing and coordinating everything from the procurement to transportation of relief supplies of various ministries and agencies, with active participation by the MOD.



At Minato Junior High School

Receiving support from various countries

Following the Great East Japan Earthquake, Japan received support from many countries, including the United States' Operation Tomodachi. The MOD/SDF has been constantly building relationships of trust and cooperation with various countries in the fields of humanitarian assistance and disaster relief.



Operation Tomodachi by the U.S. Army

Calling up SDF Reserve Personnel

In the aftermath of the Great East Japan Earthquake, SDF Reserve Personnel and Ready Reserve Personnel were called up for the first time outside of training. The MOD/SDF has been working on having the SDF Reserve Personnel conduct operations during disasters from regular times, and are making efforts to conduct practical training and more.



Activities of SDF Reserve Personnel

Mental health care

In regard to disaster related stress, the MOD/SDF is among other efforts, working to enhance education towards unit commanders by Mental Health Planning Officers and others, as well as conducting continual mental health checks immediately after the end of deployments.



Care by a Mental Health Planning Officer

Messages of thanks

After disaster relief operations are complete, many people have expressed their thanks to the SDF personnel. This includes thanks expressed to personnel involved in the operations while being disaster victims themselves.





Chronicle of Disaster Relief Operations

10 years after the Great East Japan Earthquake



See a summary of disaster relief operations to date.

1 Disaster relief operations in response to Typhoon Wipha in 2013 (Izu Oshima)

In October 2013, the MOD/SDF organized the Izu Oshima Disaster Joint Task Force to conduct disaster relief activities in Izu Oshima. From the perspective of conducting effective operations on remote islands, the Eastern Army Commanding General served as the Joint Task Force Commander so as to maximize the transport capabilities of the MSDF and ASDF, and enable centralized operations that leverage the organizational capabilities of the GSDF.

Activities by the Joint Task Force

2 Mt. Ontake disaster relief operations

In September 2014, following the eruption of Mt. Ontake in Nagano Prefecture, disaster relief operations were conducted to save lives.

Search at the top of the mountain

3 Disaster relief operations for the Kumamoto Earthquake

In April 2016, Kumamoto Prefecture was struck by a series of major earthquakes that registered a seismic intensity of 7 on the Japanese scale. The Joint Task Force, led by the Western Army Commanding General, was organized to respond. At this time, Japan and the United States jointly conducted disaster relief activities based on the new Guidelines for Japan-U.S. Defense Cooperation (the Japan-U.S. Guidelines) formulated in 2015.

At Vice-Camp Takayubaru (Kamimashiki-gun, Kumamoto)

2013

1

2014

2

2016

3

4

Torrential rains in July 2018 (Western Japan)

In 2018, the GSDF newly formed the Ground Component Command which enables the integrated operation of units, including in times of disaster. During the torrential rains of July 2018, the Ground Component Command quickly dispatched troops located throughout Japan to the disaster areas through transportation by PFI boat and other means, and swiftly had them execute operations to carry out various rescue missions.



Clearing roads



Support for the evacuation of residents following Typhoon Haishen in 2020



Torrential rains in July 2020



Torrential rains in July 2020

Present

5

In addition to responding to disasters that have become larger and more severe in recent years due to climate change and other factors, the MOD/SDF is engaged in disaster relief activities amid the spread of COVID-19 infections.



Activities on the *Diamond Princess*

Sense of mission of the SDF

Governor of Nagasaki Prefecture TAKADA Isamu, who exerted every effort for the disaster relief operations and reconstruction of the disaster areas following the June 1991 eruption of Fugen-dake of Mt. Unzen, stated the following about the sense of mission of the SDF.

“At the start, the citizens were instantly deprived of their peaceful lives, and they were at a loss for what to do. It was truly like a picture of hell. What did the citizens want the most at that time? They wanted to be shielded from the threat and terror of the mountain, and for the city to be safe. The SDF stood up to the menace of the mountain head-on. I will never forget it. On June 3, 1991, the day of the first unexpectedly huge pyroclastic flow, 43 precious lives were taken in an instant by the mountain. In order to fulfill the

wishes of the bereaved families who were holding onto a sliver of hope, on the following day, the SDF entered the area of the pyroclastic flow for three days in a row, even while another flow could have occurred at any time. It must have been so reassuring for the worried citizens. In modern times, when it is said that the value of a human life outweighs the Earth, I was deeply moved when I saw firsthand that the SDF had a sense of mission that was even heavier than the Earth and life itself. The citizens witnessed how SDF personnel are willing to risk their lives in times of crisis. We saw the true essence of the SDF.” -At the GSDF withdrawal ceremony at the Antoku Shore landfill site in Shimabara City (now the site of the Disaster Memorial Hall) on December 16, 1995

2018

4

2021

5

Challenges in the Space, Cyber and Electromagnetic Spectrum Domains

The Space, Cyber and Electromagnetic Spectrum Domains in Our Daily Life

Today, space has become an important infrastructure in a wide range of social, economic, scientific, and other fields with the launch of various observation satellites, communication and broadcasting satellites, positioning satellites, and more.

In addition, with the development of information and communications technology (ICT) in recent years, information and communications including networks such as the Internet have become indispensable in all aspects of people's lives. As a result, cyber attacks on information and communications networks can have a serious impact on people's lives.

The electromagnetic spectrum is used for a variety of purposes in our daily lives, including television, cell phone communications, and GPS location information. In these ways, the space, cyber and electromagnetic spectrum domains have become deeply ingrained in our daily lives, and the importance of these domains from the perspective of security is becoming very significant.

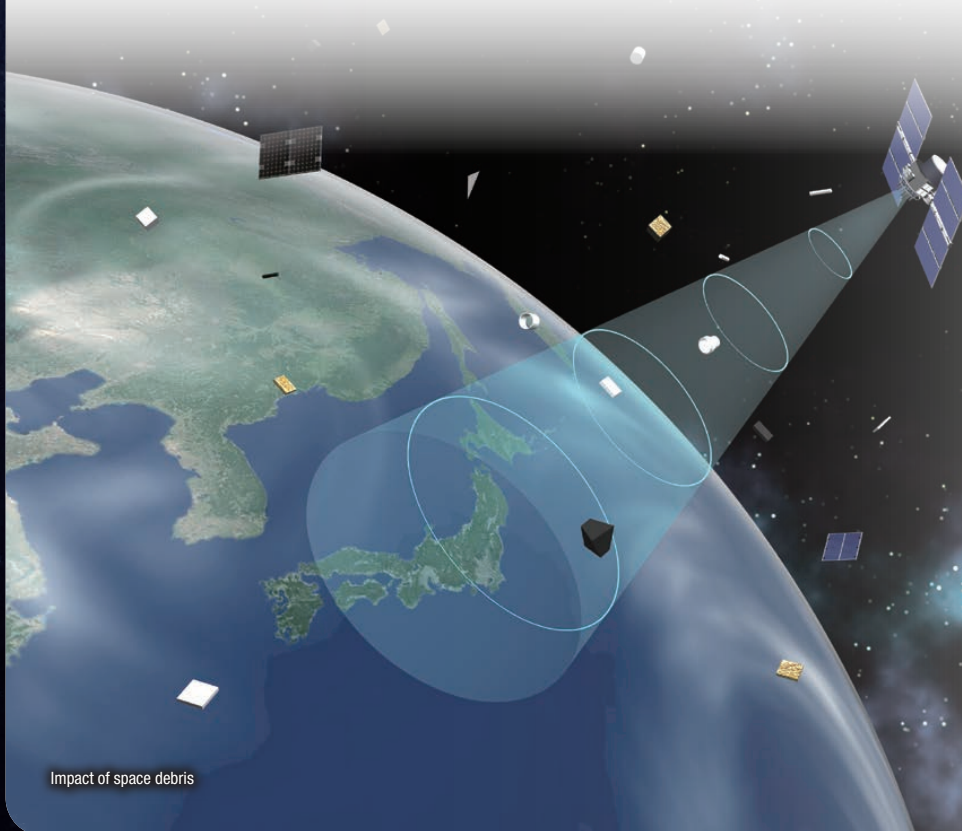
The Importance of the Space Domain

There are many people who use weather forecasts and map apps when they go out.

You may have experienced difficulties when you were out and ways communication was interrupted. The same is true for the SDF when they are deployed to various areas, where it is essential to grasp weather conditions and troop locations, and secure means of communication with allies.

The SDF's activities, including daily information gathering and surveillance activities, are greatly supported by data and information obtained from satellites.

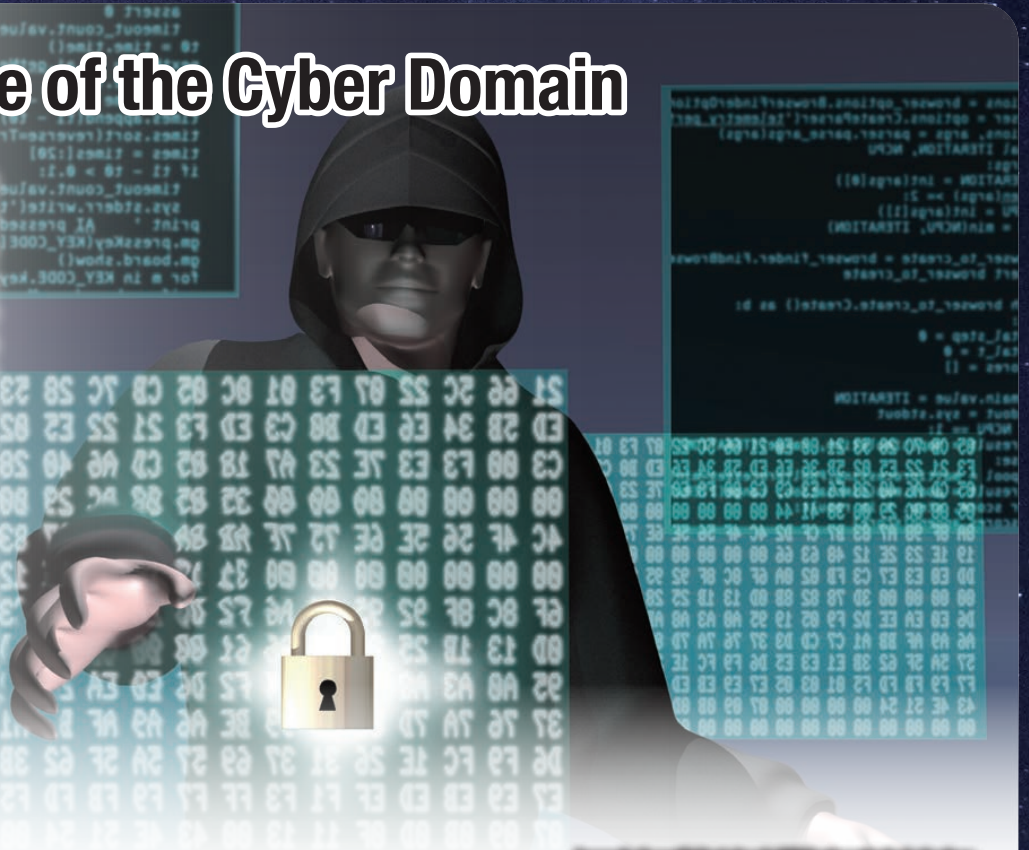
On the other hand, there is a growing risk that the functioning of satellites could be compromised due to the rapid increase in space debris and the development of anti-satellite weapons. Thus, securing the stable use of space has become an important issue.



Impact of space debris

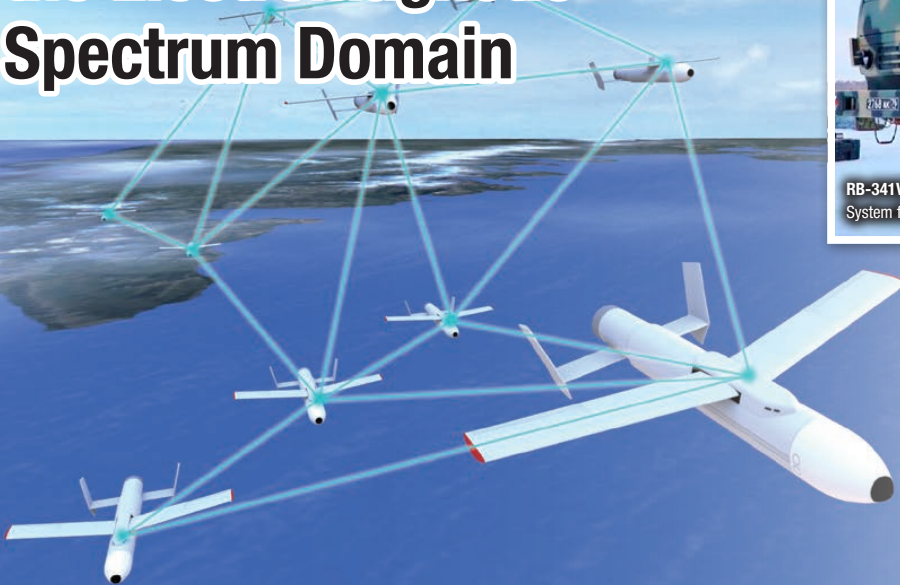
The Importance of the Cyber Domain

Information and communications networks form a foundation for the SDF's activities in various domains, and any attack against them would seriously disrupt the organized activities of the SDF. Cyber attacks are recognized as an asymmetric means of attack to impede the activities of adversaries at a low cost. It has been pointed out that militaries of various countries are trying to acquire the capability to neutralize command and control and communication functions by infiltrating networks and systems and embedding malware. There are also concerns that cyber attacks could lead to information theft and increased vulnerability of critical infrastructure and other assets. Stable use of the cyber domain is essential for the activities of the SDF and, by extension, for the security of Japan and its people.



Increasingly sophisticated and skillful cyber attacks by hackers

The Importance of the Electromagnetic Spectrum Domain



Drone swarms



RB-341V Leer-3 (an example from Russia)
System for jamming cell phone signals with component UAVs

In recent years, militaries are becoming increasingly dependent on the electromagnetic spectrum due to the proliferation of telecommunication equipment, modernization of equipment, and technological advances. For example, technologies such as the networking of equipment and swarms of small unmanned aerial vehicles (UAVs) make the use of the electromagnetic spectrum essentials.

As a result, technologies to disrupt adversaries' use of the electromagnetic spectrum are also advancing, and there are reports of cases in other countries of interference with radio communications as well as interference with positioning signals to disrupt the activities of the UAVs. In this way, the electromagnetic spectrum is at the forefront of offense and defense in modern combat, and the SDF needs to strengthen its capabilities in the electromagnetic spectrum domain.

Challenges in the Space, Cyber and Electromagnetic Spectrum Domains

Building a Multi-Domain Defense Force

To deter and counter qualitatively and quantitatively superior military threats, it is necessary to realize cross-domain operations that organically fuse capabilities in traditional domains-land, sea, and air-with capabilities in new domains-space, cyberspace and electromagnetic spectrum.



Establishment of the Space Operations Squadron (May 2020)
The Space Operations Group (tentative name) to be established in FY2021



Maneuver and deployment of mobile operating unit with advanced mobility and ISR capabilities

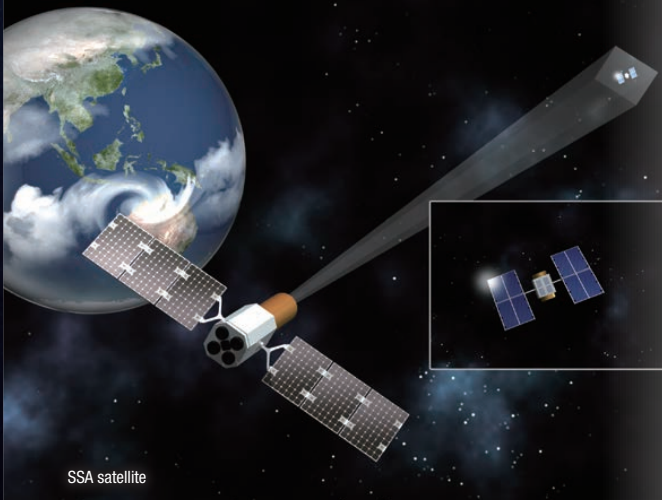


Surface unit engaged in Japan-U.S. bilateral training aimed at strengthening the ability of the Japan-U.S. Alliance to deter and counter threats

Capabilities in Space Domain

● Strengthening Space Situational Awareness (SSA)

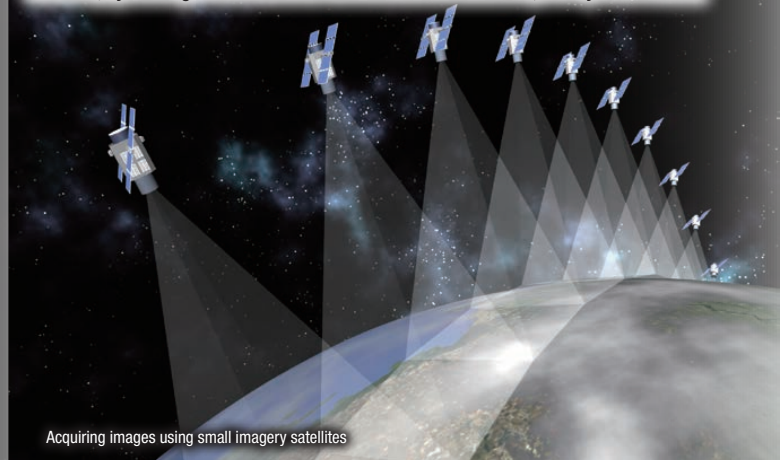
The ASDF playing a central role in cooperation with the U.S. military and others, Japan is strengthening SSA to monitor and avoid risks that could hinder the stable use of space.



SSA satellite

● Improving Various Capabilities that Use Space Including Information Gathering, Communication, and Positioning Capabilities

The MOD/SDF is enhancing various capabilities for information gathering, communication, and positioning using space by acquiring satellite images through the use of small satellite constellations, which are operated by a network of multiple small satellites, by utilizing X-band defense communications satellites, and by other means.



Acquiring images using small imagery satellites

● Strengthening Resiliency in Use of Space

Japan is working to strengthen resiliency in the use of space through the multiplication and diversification of communication methods via satellites.

Capabilities in Cyber Domain

- **Keeping Abreast of the Latest Information Including Risks, Counter Measures and Technological Trends in Cyber Domain**

In order to keep abreast of the latest information, including cyber-related risks, counter measures and technological trends, the MOD/SDF effectively cooperates with private companies and foreign countries including the United States.



State Minister of Defense Nakayama inspects cyberspace education at the GSDF Signal School (October 2020)

- **Securing and Development of Cyber Workforce**

In addition to reinforcing cyber education within the organization, the MOD/SDF has held a cyber contest to identify highly skilled workforce with cybersecurity expertise and promoted the utilization of external human resources through, for example, initiatives for recruiting the Chief Cyber Security Advisors who have advanced knowledge.



The JSDF Cyber Defense Command (tentative name) to be established in FY2021

Capabilities in the Electromagnetic Spectrum Domain

- **Enhancing Ability to Manage and Coordinate the Electromagnetic Spectrum**

To ensure that the electromagnetic waves used by the SDF are effective in areas where electromagnetic waves used not only by the SDF but also by other parties are intermingled, the SDF is conducting research and building an operational framework to properly manage and coordinate electromagnetic waves.

- **Strengthening Capabilities to Neutralize Radar and Other Devices of Opponent**

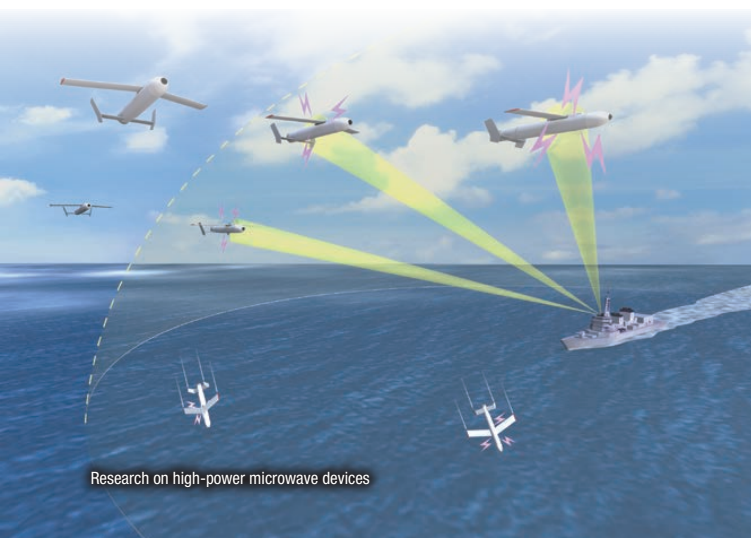


Acquisition of network electronic warfare systems



Development of stand-off electronic warfare aircraft

- **Research on Potentially Game-Changing Technologies**



Research on high-power microwave devices



Demonstration of laser system-mounted vehicles

Chapter 1 Overview

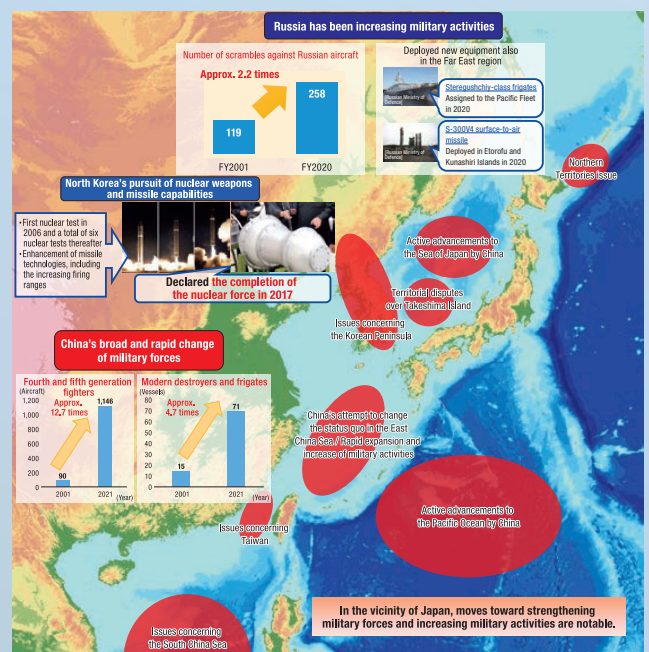
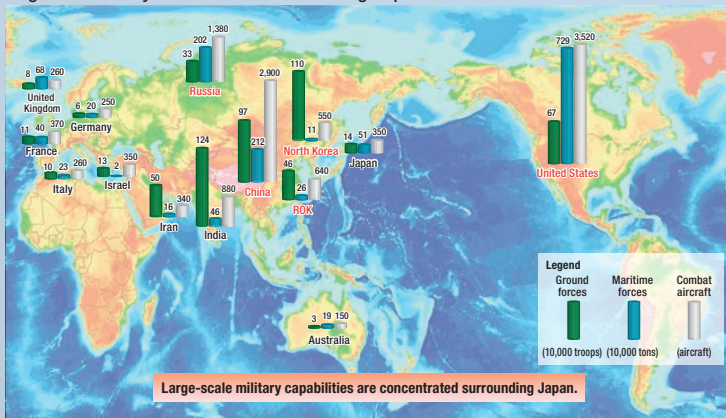
Current Trends in Security Environment

- Uncertainty over the existing order is increasing, and inter-state competition is becoming prominent across the political, economic and military realms.
 - Complex measures required due to “hybrid warfare”
 - Prolonged gray-zone situations
- Technological progress exerting significant influence on security
 - Importance of space, cyberspace, and electromagnetic spectrum domains
 - Game-changing technologies that could drastically change the conduct of future warfare (artificial intelligence (AI), hypersonic, and high-power energy technologies, etc.)
- Emergence of security challenges, which cannot be dealt with by a single country alone
 - Need to secure stable use of new domains including space and cyberspace; need to ensure security of maritime traffic; response to proliferation of weapons of mass destruction (WMDs); and response to international terrorism
- In relation to the COVID-19 pandemic, it has been pointed out that there have been moves by some countries with the intent to create international and regional orders more preferable to themselves and to expand their influence. There is a need to continue to monitor such moves as security issues with great concern.

Security Environment Surrounding Japan

- Military powers with high quality and quantity are concentrated in Japan's surroundings, where clear trends such as further military buildup and an increase in military activities are observed.
- A regional cooperation framework in the security realm has not been sufficiently institutionalized in the Indo-Pacific region and longstanding issues of territorial rights and reunification continue to remain.
- Recent years have seen a continued tendency towards the prolongation of “gray zone” situations that are associated with territories, sovereignty and economic interests, and such situations may increase and expand in the future.

Regional Security Environment surrounding Japan etc.



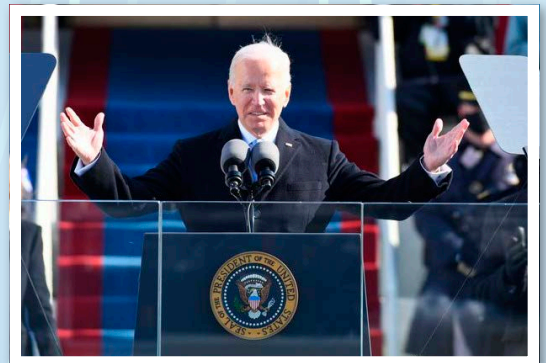
United States

Inauguration of the Biden Administration

- The Biden administration was inaugurated in January 2021. Following on from the previous Trump administration, the Biden administration continues to focus on initiatives based on a tough stance towards China. At the same time, with the administration having set out a clear foreign policy direction based on international cooperation, attention should be paid to developments related to an overall review of U.S. security policy, which will be conducted with a focus on consultations with U.S. allies and partners.
- Based on the “America First” policy and the realist concept that power plays a central role, the Trump administration has significantly changed the patterns of U.S. involvement in the world. The administration set out a clear stance of emphasizing strategic competition with China, in particular, and also with Russia.

Security Policy under the Biden Administration

- President Biden expressed the basic stance that the United States will reengage itself in the world again by repairing its alliances, and lead the world not merely through demonstration of power, but with credibility and moral authority.
- President Biden also expressed his recognition that the United States would have to respond to a new era characterized by growing authoritarianism by countries such as China and Russia, and global issues such as the spread of infectious diseases, climate change, and nuclear proliferation.
- The Biden administration clarified its intent to conduct a global posture review of the U.S. forces, and announced that the United States would counter China over the long term, which the administration considers the only competitor potentially capable of sustainably challenging the international system, putting the highest priority on the military presence in the Indo-Pacific region.



President Biden delivering his inauguration speech (January 2021)
[U.S. Department of State]

Engagement in the Indo-Pacific Region, etc.

- The Trump administration rejected China’s attempt to impose the idea that “might is right” in the South China Sea and other waters, and deployed two Carrier Strike Groups in the South China Sea for the first time in six years to carry out naval exercises, while also indicating that the United States was reinforcing the implementation of the Freedom of Navigation Operations. President Biden reaffirmed that maintaining a “free and open Indo-Pacific” is a U.S. priority, and announced that the U.S. stance on this remains unchanged.
- The Biden administration emphasizes the importance of technology in defense policy, such as utilizing emerging technologies and dealing with the associated risks, and enhancing capabilities in cyberspace. The administration also expressed the view that technological competition will become one of the central issues in the strategic competition with China.



Nimitz and Ronald Reagan Carrier Strike Groups conducting exercises in the South China Sea (July 2020) [U.S. Navy]

Chapter 2 China

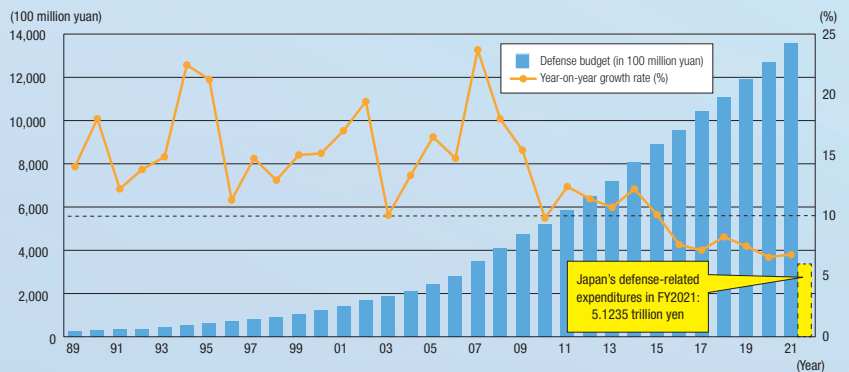
General Situation

- 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.
- It is strongly hoped that China will play active roles in the region and the international community in a more cooperative manner.

Enhancement of Operational Capabilities

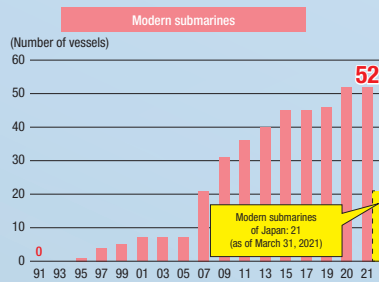
- China has sustained high-level growth of its defense budget without transparency, engaging in broad, rapid improvement of its military power in qualitative and quantitative terms with focus on nuclear, missile, naval and air forces. In doing so, it has attached importance to ensuring superiority in the new domains including cyber, electromagnetic spectrum, and space.
- While implementing a policy of civil-military fusion across the board, China is striving to develop and acquire cutting-edge technologies that can be used for military purposes.
- At the Standing Committee of the China's National People's Congress in December 2020, the revised National Defense Law was adopted, in which protecting China's overseas interests, penetration of "Xi Jinping Thought of Strong Military," and space, electromagnetic spectrum, and cyberspace as critical security areas, etc., were newly stipulated. It is assumed that China is aiming to create the impression that it has achieved major policy and system reforms. Going forward, attention should be paid to China's activities abroad and in new domains.

Changes in China's Defense Budget

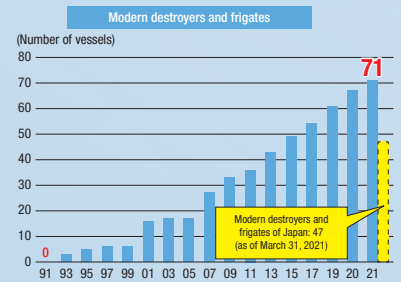


Note: This basically shows the defense budget within "the central government's general public budget," which had been named as "the central fiscal expenditures" prior to FY2014. Year-on-year growth rate compares the budget of a given year against the initial budget of the previous year. Note that FY2002 defense budget was calculated based on the increased amount from the defense budget in the previous FY because only the amount and rate of growth were released. For FY2016, FY2018, FY2019, FY2020 and FY2021, the amount of "the central government expenditures," which are part of the central government's general public budget, are used because only the central government expenditures were announced.

Major Chinese Navy and Air Force Capabilities

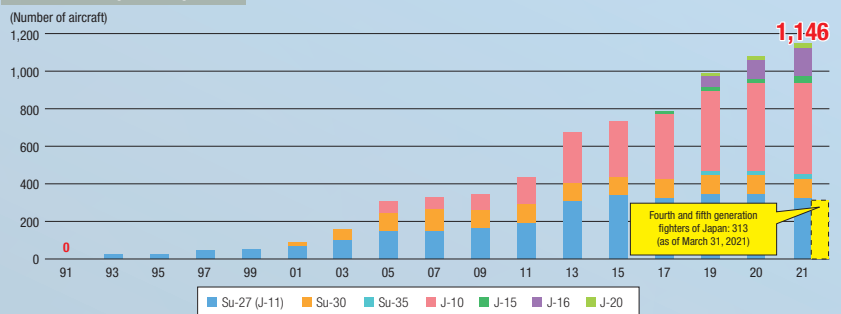


* Total number of Jin-class, Shang-class, Song-class, Yuan-class and Kilo-class submarines



*1 Total number of Renhai-class, Luhou-class, Luhai-class, Sovremenny-class, Luyang-class and Luzhou-class destroyers, and Jiangwei-class and Jiangkai-class frigates.
*2 Additionally, China also has 50 Jiangdao-class corvettes (2021).

Fourth and fifth generation fighters

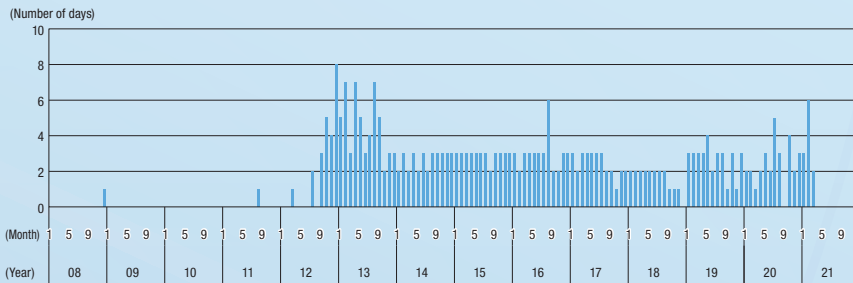


DF-17 Medium Range Ballistic Missile (MRBM), which is viewed as being capable of carrying a Hypersonic Glide Vehicle (HGV)
[Avalon/Jiji Press Photo]

Activities in the Surrounding Sea Area and Airspace of Japan

- China has relentlessly continued attempts to unilaterally change the status quo by coercion in the sea area around the Senkaku Islands, leading to a grave matter of concern. Its actions involving unilateral assertions over Japan's territorial waters around the Senkaku Islands are, fundamentally, a violation of international law.
- In February 2021, the China Coast Guard Law, which stipulates the responsibility of the Coast Guard and its authority including the use of weapons, entered into force. The Coast Guard Law includes problematic provisions in terms of their inconsistency with international law. Sources of inconsistency include, among others, ambiguity as to geographical areas the Coast Guard Law applies and how the rules governing the use of weapons are implemented. The Coast Guard Law must not be allowed to infringe on the legitimate interests of the relevant countries including Japan. Furthermore, the raising of tensions in the East China Sea and other sea areas is completely unacceptable.

Changes in number of days on which China Coast Guard vessels, etc. intruded into the Japanese territorial waters

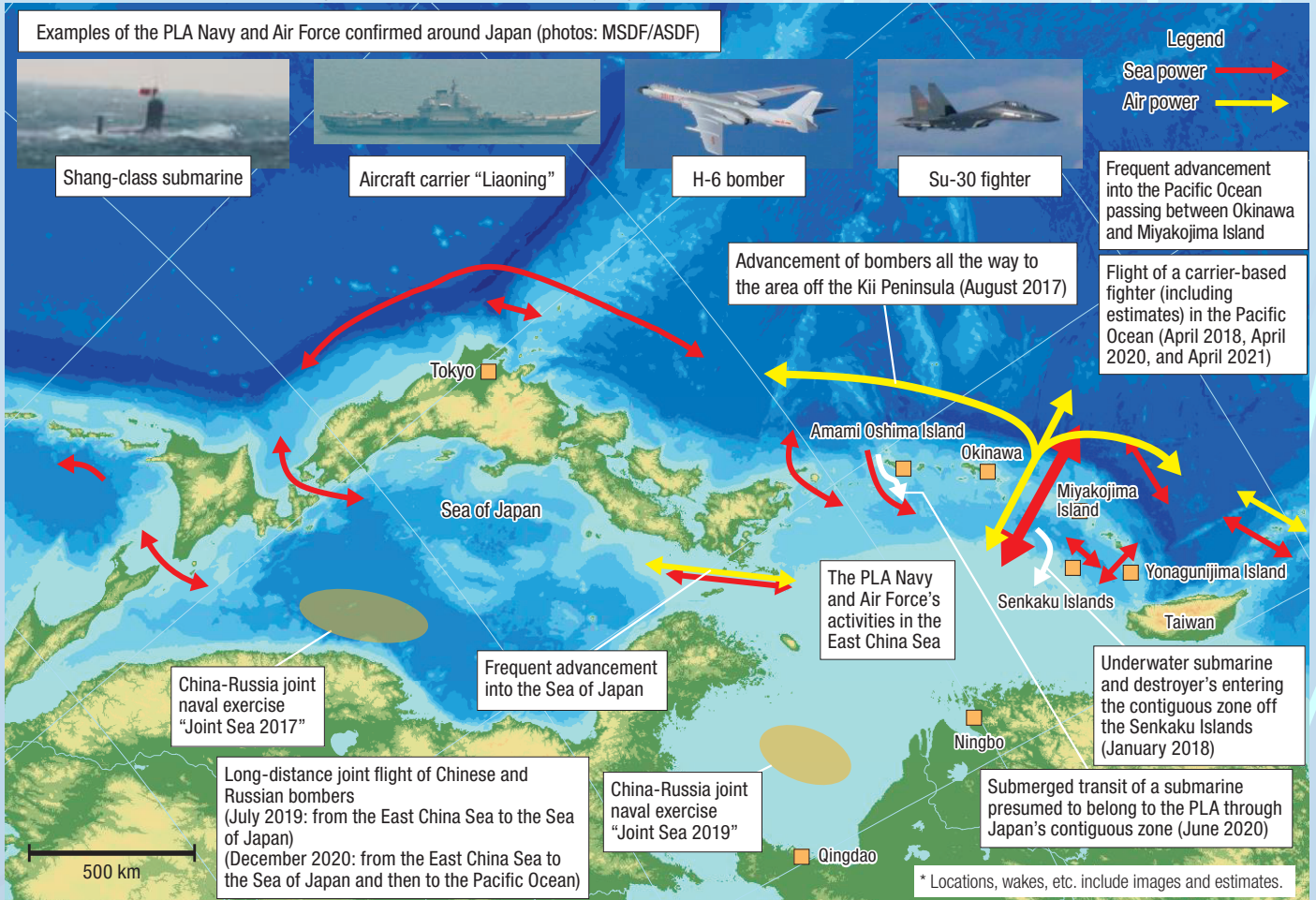


Identification in the contiguous zone

Year	Number of days (days)	Total number of identified vessels (vessels)
2012	79	407
2013	232	819
2014	243	729
2015	240	709
2016	211	752
2017	171	696
2018	158	607
2019	282	1,097
2020	333	1,161
2021	81	300

* The figure for 2012 is that from September to December, and the figure for 2021 is as of the end of March.

PLA's Recent Activities in the Surrounding Sea Area and Airspace of Japan (image)





Security Environment Surrounding Japan

Chapter 2

Relations between the United States and China, etc.

U.S.-China Relationship

- In recent years, competition between the United States and China is becoming more prominent across the political, economic and military realms, with both countries making moves to keep each other in check. In particular, competition in technological fields is likely to become even more intense.
- As China rapidly enhances its military power, changes in the military power balance between the United States and China may possibly affect the peace and stability of the Indo-Pacific region. It is necessary to pay greater attention to the military trends of the two countries in areas such as the South China Sea and Taiwan.
 - In the South China Sea, China is expanding its military activities, including ballistic missile launches and military exercises involving aircraft carriers. Meanwhile, in July 2020, the United States criticized China's claims of maritime interests as being illegal, and toughened its stance against China further by implementing Freedom of Navigation Operations and military exercises involving aircraft carriers.
 - At a US Senate hearing, the Commander of the US Indo-Pacific Command indicated that the military balance in the Indo-Pacific is becoming more unfavorable for the United States and its allies and that they are accumulating risk that may embolden China to unilaterally change the status quo. Furthermore, he testified that China's ambitions towards Taiwan will manifest itself in the next six years.

Taiwan

- China has further intensified military activities around Taiwan including Chinese aircrafts' entering the southwestern airspace of Taiwan. In the meantime, the United States has demonstrated a clear stance of supporting Taiwan in military aspects, such as transits by U.S. vessels through the Taiwan Strait and weapon sales. Stabilizing the situation surrounding Taiwan is important for Japan's security and the stability of the international community. Therefore, it is necessary that we pay close attention to the situation with a sense of crisis more than ever before.
- The overall military balance between China and Taiwan is tilting to China's favor, and the gap appears to be growing year by year. Attention should be paid to trends such as the strengthening of Chinese and Taiwanese forces, the sale of weapons to Taiwan by the United States, and Taiwan's own development of its main military equipment.

Chapter 2

North Korea

Overview

- Military trends in North Korea pose grave and imminent threats to Japan's security.
- North Korea has conducted six nuclear tests in the past and is proceeding with ballistic missile development at an extremely rapid pace. It is believed that North Korea already has the ability to attack Japan with nuclear weapons fitted to ballistic missiles, within whose range Japan lies.
- North Korea has developed more advanced missile-related technologies in recent years, trying to breach missile defense networks by developing ballistic missiles that use solid fuel and fly at lower altitudes than conventional ballistic missiles on irregular trajectories. There are concerns that such advanced technologies will be applied to longer-range missiles.
- North Korea is relentlessly pursuing increasingly complex and diverse modes of attack and is steadily strengthening and improving its attack capabilities. These enhancements in its capabilities make early detection of the signs of a launch and the interception of the missiles more difficult, thereby posing new challenges for the information gathering, early warning, and interception postures of relevant countries, including Japan.
- In March 2021, North Korea launched new types of ballistic missiles.



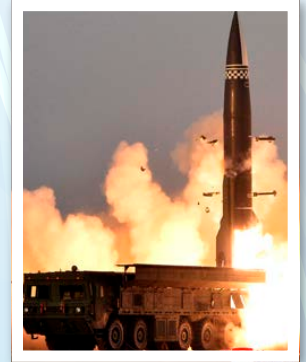
A possible new ICBM-class ballistic missile that appeared at a military parade (October 2020) [EPA/Jiji]



A possible new SLBM that appeared at a military parade (January 2021) [EPA/Jiji]

Future Trends Regarding Weapon Development

- At the 8th Congress of the Korean Workers' Party (KWP) in January 2021, North Korea made specific remarks on the development of various weapons such as multi-warhead technology, "hypersonic gliding flight warheads," nuclear-powered submarines, and solid fuel-propelled ICBMs, thereby announcing the stance that it is reinforcing its military capabilities.
- North Korean military parades in October 2020 and January 2021 showcased a possible new ICBM-class ballistic missile that appeared at a military parade, a possible new SLBM that appeared at a military parade referred to as Pukguksong-4 and Pukguksong-5, and a new type of ballistic missile (launched in March 2021).



New type of ballistic missile (March 2021)
 [AFP/Jiji]

Chapter 2

Russia

Overview

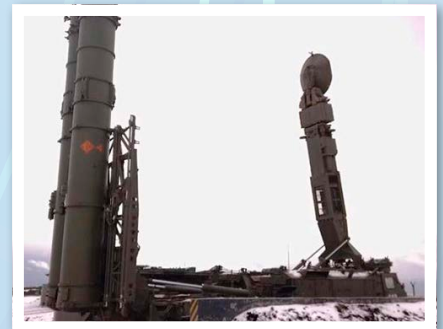
- Russia is modernizing its military equipment, including strategic nuclear forces, and is gradually enhancing the deployment capability of its military forces in remote areas by securing military bases outside Russia.
- Russia is promoting the development of hypersonic weapons and other new types of weapons, while also intensifying activities in new domains such as space and electromagnetic spectrum.



Launch of the Russian Zircon hypersonic cruise missile (October 2020)
 [Official YouTube channel of the Ministry of Defence of Russia]

Activities in Japan's Northern Territories and the Vicinity of Japan

- In addition to a trend of increasing activity by Russian armed forces in the vicinity of Japan, Russia has also shown a recent tendency to deploy the latest equipment in the Far East region.
- In the strategic nuclear forces exercises conducted in December 2020, a Borey-class SSBN deployed in and around the Sea of Okhotsk fired a new SLBM for the first time.
- In December 2020, the Ministry of Defence of Russia announced the full deployment of the S-300V4 surface-to-air missile system in Etorofu and Kunashiri Islands.

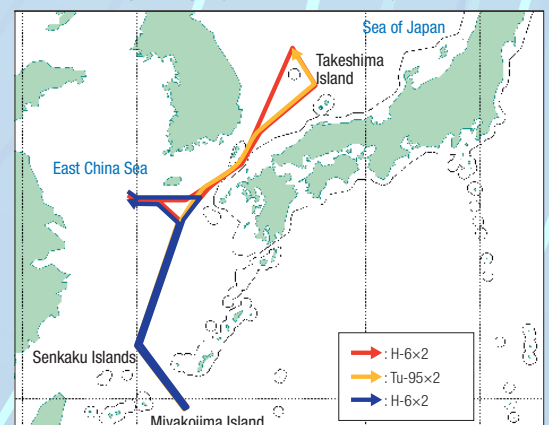


S-300V4 surface-to-air missile system deployed in Etorofu and Kunashiri Islands
 [Russian Ministry of Defence]

Advancement in the Military Cooperation with China

- In December 2020, Russian Tu-95 bombers, along with Chinese H-6 bombers, carried out long distance joint flights from the Sea of Japan to the East China Sea and the Pacific Ocean. The China-Russia joint flight is the second such incident following one in July 2019.
- In response to a question regarding the Chinese-Russian military alliance, President Putin remarked, "Theoretically, it is possible to envisage a military alliance."
- In December 2020, the Chinese and Russian Ministers of Defense agreed to extend the bilateral cooperation agreement on the launch notification for ballistic missiles and other missiles for 10 years.

China-Russia joint flight (December 22, 2020)



Trends Concerning New Domains and Relevant Challenges Facing the International Community

Military Science and Technology

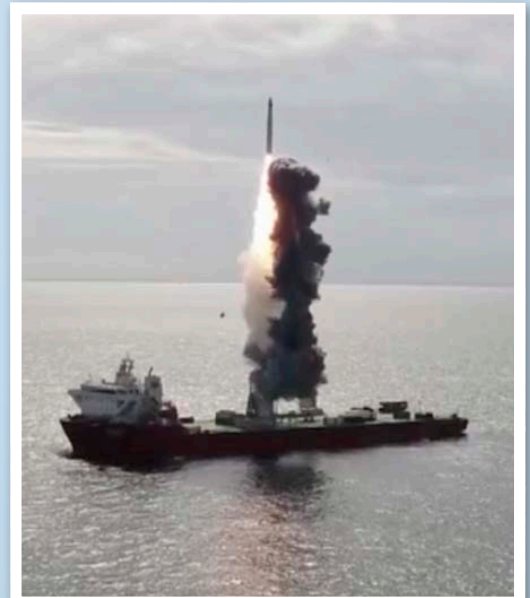
- Major countries are focusing on the development of advanced technologies that can be game-changing technologies and drastically change the future of warfare (artificial intelligence (AI), hypersonic, and high-power energy technologies, etc.). Some advanced technologies in the civilian sector have been transferred to military technologies.
- As it is being pointed out that China has attempted to obtain advanced technologies from other countries, protection of technologies is also an important issue.



Simulated battle between AI and U.S. Air Force Pilot [DARPA]

Space Domain

- In outer space, various countries are rapidly developing capabilities to ensure their military superiority, such as reconnaissance, communication, and positioning satellites. On the other hand, these countries are also emphasizing the development of their capabilities to impede each other's use of outer space. Recent major trends among the major countries are as follows.
 - United States: In the Defense Space Strategy, the United States assessed that China and Russia present the most immediate and serious threat to the country. The United States is also advancing plans for a satellite mega-constellation.
 - China: China has actively advanced space development including launching a Mars probe, developing a communication satellite constellation plan, and launching a rocket from a ship on the Yellow Sea. China has completed the launch of all satellites that constitute the BeiDou Navigation Satellite System.
 - Russia: Russia has increased its space activities, including conducting two launch tests of a ground-launched anti-satellite missile (U.S. announcement).



Launch of the "Long March 11" from the Yellow Sea [Jij]

Cyber Domain

- It is pointed out that China, Russia, and North Korea have been conducting increasingly diverse and aggressive cyber attacks. Recent major cyber attacks are as follows.
 - China: An actor with ties to China's Ministry of National Security conducted cyber attacks on private-sector companies that were involved in the development of the COVID-19 vaccine (announced by the United States, July 2020).
 Cyber attacks that are highly likely to have the involvement of the Chinese People's Liberation Army's units against approximately 200 domestically based Japanese companies and other entities (announced by Japan, April 2021)
 - Russia: The Main Intelligence Directorate of the General Staff of the Russian Armed Forces (GRU) was responsible for the cyber attack on the electricity grid in Ukraine and the cyber activities targeting the PyeongChang Olympics (announced by the United States, October 2020)
 Russia conducted cyber reconnaissance on organizations related to the Tokyo Olympic Games (announced by the United Kingdom, October 2020)
 Russia's Foreign Intelligence Service (SVR) was responsible for cyber attacks targeting U.S. government agencies (announced by the United States, April 2021)
 - North Korea: Cyber attacks by North Korean Army's Reconnaissance Bureau (announced by the United States, February 2021)



Press announcement by Assistant Attorney General for National Security [U.S. Department of Justice]

Electromagnetic Domain

- Major countries are also developing equipment for severe electronic warfare environments and conducting electronic warfare-oriented exercises.

Climate Change

- Recognizing climate change as a security issue is shared among countries (risk of inducing and/or exacerbating conflicts over land and resources, risk of inducing social and political tensions and conflicts due to large-scale migration).
- It was pointed out that the impacts of climate change can undermine the stability of vulnerable nations. In addition to the increasing need for international assistance, including military operations, there are also moves by countries to strengthen their military posture in the Arctic areas. In terms of the direct impact on militaries, various possibilities were pointed out including increased deployment opportunities for rescue operations, increased burdens on equipment and bases, and growing demands to implement environmental measures.



Japan's Security and Defense Policy

Chapter 2

Japan's Security and Defense Policy

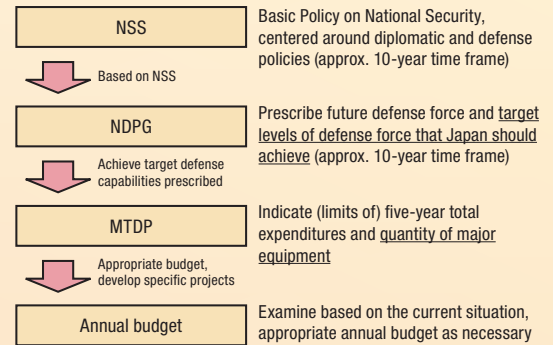
National Security Strategy (NSS)

The NSS developed in December 2013 specifies, as Japan's fundamental principle of national security, that Japan will contribute more proactively than ever before to the peace, stability, and prosperity of the international community, while committed to continuing the path as a peace-loving nation, and seeking its own security as well as peace and stability in the Asia-Pacific region from the perspective of a "Proactive Contribution to Peace" based on the principle of international cooperation.

The National Defense Program Guidelines for FY2019 and Beyond (NDPG)

- The National Defense Program Guidelines for FY2019 and Beyond (NDPG) formulated in December 2018 stipulates that the Ministry of Defense (MOD) / Self-Defense Forces (SDF) will build a Multi-Domain Defense Force with the following characteristics as a truly effective defense capability, in light of the increasingly severe and uncertain security environment surrounding Japan.
 1. Being able to execute cross-domain operations, which organically fuse capabilities in all domains, including space, cyberspace and electromagnetic spectrum to generate synergy and amplify the overall strength
 2. Being capable of sustained conduct of flexible and strategic activities during all phases from peacetime to armed contingencies
 3. Being capable of strengthening the ability of the Japan-U.S. Alliance to deter and counter threats as well as promoting multi-faceted and multi-layered security cooperation

Relationship among the NSS, the NDPG, the MTDP, and the fiscal year budget



Japan's Basic Defense Policy

The following are set forth as national defense objectives:

- to create, on a steady-state basis, a security environment desirable for Japan by integrating and drawing on the strengths at the nation's disposal;
- to deter threats from reaching Japan by making opponents realize that doing harm to Japan would be difficult and consequential; and
- should a threat reach Japan, to squarely counter the threat and minimize damage.

Japan will strengthen each of the means by which it will successfully achieve these national defense objectives: Japan's own architecture for national defense; the Japan-U.S. Alliance; and international security cooperation.

Priorities in Strengthening Defense Capability

In order to adapt to increasingly rapid changes in the security environment, Japan will enhance priority capability areas as early as possible.

- Strengthening Capabilities Necessary for Cross-Domain Operations:
 - Strengthening capabilities in new domains including space, cyberspace and electromagnetic spectrum.
 - Strengthening capabilities in the traditional domains, such as capabilities in maritime and air domains, stand-off defense capability, comprehensive air and missile defense capability, and maneuver and deployment capability.
 - Strengthening sustainability and resiliency by promoting necessary measures for securing ammunition and fuel, ensuring maritime shipping lanes, and protecting important infrastructure.
- Strengthening core elements comprising defense capability:
 - Strengthening core elements of defense capability by reinforcing the human resource base, technology base, and defense industrial base, reviewing equipment structure, etc.

Medium Term Defense Program (FY2019–FY2023; MTDP)

- The MTDP, formulated in December 2018, sets forth the policy for the build-up of defense capability, and the main projects for the five-year period from FY2019 to FY2023.
- The MTDP sets forth the following five basic policies: 1. Acquiring and strengthening capabilities essential for realizing cross-domain operations; 2. Improving the efficiency of acquisition of equipment and reinforcing the technology base; 3. Reinforcing the human resource base; 4. Strengthening the Japan-U.S. Alliance and security cooperation; 5. Greater efficiency and streamlining in the build-up of defense capability.

Chapter 4

Build-up of Defense Capability and Defense-Related Expenditures in FY2021

Build-up of Defense Capability in FY2021

In FY2021, as the third year of the NDPG and the MTDP, the MOD/SDF will steadily implement initiatives toward building a Multi-Domain Defense Force based on the NDPG and the MTDP.

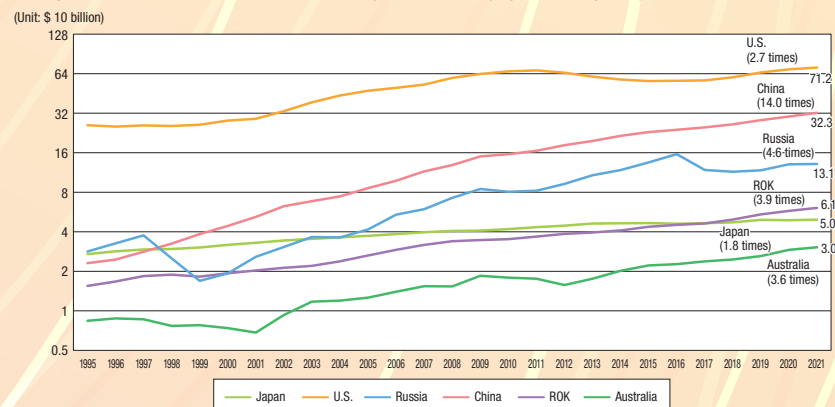
Main Projects of Build-up of Defense Capabilities in FY2021 (Priorities in strengthening capabilities necessary for cross-domain operations)

Capabilities that should be acquired and strengthened	Outline
Capabilities in space domain	<ul style="list-style-type: none"> ○ Procurement of SSA satellite (space-based optical telescope) ○ Development of SSA systems ○ Strengthening information-gathering capability using outer space ○ Establishment of Space Operations Group (tentative name), etc.
Capabilities in cyber domain	<ul style="list-style-type: none"> ○ Enhancement of Cyber Defense Group, etc. <ul style="list-style-type: none"> ● Establishment of the JSDF Cyber Defense Command (tentative name) as a joint unit ○ Securing and developing of cyber workforce ○ Utilization of cutting-edge cyber technologies in the field of cyberspace ○ Improving security of system networks, etc.
Capabilities in electromagnetic domain	<ul style="list-style-type: none"> ○ Reinforcement of the capabilities for neutralizing the radar of an opponent invading Japan <ul style="list-style-type: none"> ● Development of stand-off electronic warfare aircraft ○ Strengthening of capability to minimize electromagnetic jamming from an opponent attempting to invade Japan <ul style="list-style-type: none"> ● Procurement of F-35A (×4) and F-35B (×2) fighters with superior electronic protection capability ○ Enhancement of systems of electronic warfare units <ul style="list-style-type: none"> ● Establishment of the GSDF Electronic Operations Unit (tentative name) ○ Strengthening intelligence capability related to the electromagnetic spectrum, etc.
Capabilities in Maritime and Air Domains	<ul style="list-style-type: none"> ○ Procurement of P-1 patrol aircraft (×3) ○ Refurbishment of SH-60K patrol helicopter to rescue specification ○ Procurement of US-2 search and rescue amphibian (×1) ○ Construction of destroyers (×2) and a submarine ○ Refurbishment of Izumo-class destroyers ○ Japan-led development of F-X, etc.
Stand-off defense capability	<ul style="list-style-type: none"> ○ Procurement of stand-off missile, etc.
Comprehensive air and missile defense capability	<ul style="list-style-type: none"> ○ Procurement of PAC-3MSEs ○ Research on HGV intercept system ○ Technical assistance service related to the study of the Aegis system-equipped vessel, etc.
Maneuver and deployment capability	<ul style="list-style-type: none"> ○ Procurement of Type-16 mobile combat vehicles (×22) ○ Reorganization of the 2nd Division into a Rapid Deployment Division ○ Maneuver, deployment and field training in remote islands by rapid deployment division and brigade ○ Procurement of C-2 transport aircraft (×1), etc.
Sustainability and resilience	<ul style="list-style-type: none"> ○ Procurement of various ammunition necessary for continuous unit operation ○ Promotion of measures against aging and earthquake proofing of SDF facilities ○ Ensuring necessary expenses for sustainment and maintenance of equipment, etc.

Defense-Related Expenditures

In order to adapt to increasingly rapid changes in the security environment, Japan must strengthen its defense capability at speeds that are fundamentally different from the past. To this end, in light of the NDPG and the MTDP, defense-related expenditures for FY2021 were increased by 54.7 billion yen from the previous fiscal year to 5.1235 trillion yen (an increase of 1.1% from the previous year). Defense-related expenditures have increased for nine consecutive years.

Changes in Defense Expenditures in Six Major Countries (logarithmic graph)



(Notes)

- Regarding the defense expenditures of the five countries, figures officially published by the government of each country were converted into US dollars amounts, using the purchasing power parity for 2020 (published by the OECD: as of April 2021). The figures for 2021 were converted into US dollars using the purchasing power parity of 2020. (1 dollar = 103.412076 yen = 4.200808 yuan = 0.740525 rubles = 869.063949 won = 1.461587 Australian dollars = 0.716264 pound = 0.740525 France euros = 0.744679 Germany euros)
- Japan's defense-related expenditure shows its initial budget (excluding SACO-related expenses, the U.S. Forces realignment-related expenses (the portion allocated for mitigating the impact on local communities), and expenses for the three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience, etc.)
- Regarding the United States, the figures for FY2021 are estimates.
- The amount and year-on-year growth rate (figures rounded to one decimal place) for FY1995-FY2021 are indicated.



Three Pillars of Japan's Defense (Means to Achieve the Objectives of Defense)

Chapter 1

Japan's Own Architecture for National Defense

Response from Peacetime to Gray Zone Situations

Persistent Intelligence, Surveillance and Reconnaissance (ISR) in the Area Surrounding Japan

- The Self-Defense Forces (SDF) is engaged in persistent intelligence collection and monitoring and surveillance during peacetime over Japan's territorial waters and airspace, as well as the surrounding sea and airspace so that it can respond to various contingencies immediately and seamlessly.



GSDF personnel engaged in warning and surveillance activities



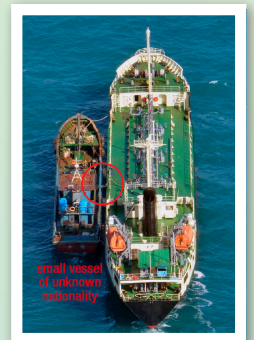
MSDF P-1 patrol aircraft conducting warning and surveillance activity in the area surrounding Japan



ASDF radar site engaging in warning and surveillance activities 24 hours a day and 365 days a year

Response to Illicit Ship-to-Ship Transfers

- As part of its regular warning and surveillance activities in sea areas surrounding Japan, the SDF is gathering information on vessels suspected of violating the UN Security Council Resolutions. From 2018 to the end of March 2021, the SDF has observed 24 cases of illicit ship-to-ship transfer by North Korean vessels.
- In response to these illicit maritime activities, including ship-to-ship transfers, the United States, Australia, Canada, France and New Zealand carried out surveillance activities with aircraft using the U.S. Kadena Air Base in Japan. In addition, naval vessels of Australia, Canada, France, the United Kingdom and the United States conducted surveillance activities in sea areas surrounding Japan.



A North Korea-flagged tanker strongly suspected of committing a ship-to-ship transfer (December 2019)

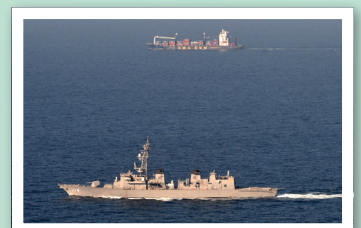
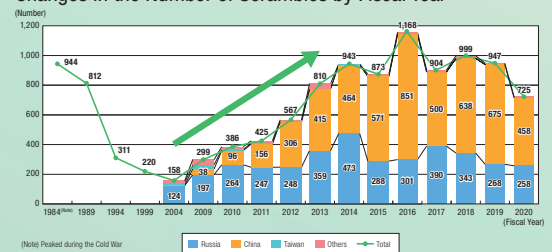
Warnings and Emergency Takeoffs (Scrambles) in Preparation against Intrusion of Territorial Airspace

- The Air Self-Defense Force (ASDF) detects and identifies aircraft flying in airspace surrounding Japan using warning and control radars as well as early-warning and control aircraft. If any suspicious aircraft heading to Japan's territorial airspace are detected, fighters and other aircraft scramble to approach them in order to confirm the situation and monitor the aircraft as necessary.
- In FY2020, ASDF aircraft scrambled 725 times.

Information Gathering Activities for Ensuring the Safety of Japan-related Vessels in the Middle East

- As the information gathering activities for ensuring the safety of Japan-related vessels in the Middle East, the MOD dispatched a destroyer as the Deployment Surface Force for Information Gathering and also used two fixed-wing patrol aircraft (P-3C) of the Deployment Air Force for Counter Piracy Enforcement (DAPE).

Changes in the Number of Scrambles by Fiscal Year

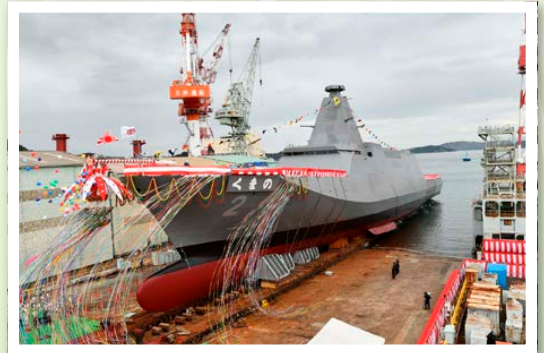


Destroyer JS "Suzunami" engaging in information gathering activities in the northern part of the Arabian Sea

Defense of Japan including its Remote Islands

Defense of Japan's Remote Islands

- In response to attack on Japan including its remote islands, the SDF will quickly maneuver and deploy requisite units to block access and landing of invading forces while ensuring maritime and air superiority. Even when maintaining maritime and air superiority becomes untenable, the SDF will block invading forces' access and landing from outside their threat envelopes. Should any part of the territory be occupied, the SDF will retake it by employing all necessary measures.
- As part of measures to enhance the persistent ISR posture, the SDF has launched a new type of destroyer (FFM) and acquired E-2D airborne early warning aircraft.



Naming and launching ceremony for the new type of Destroyer JS "Kumano" (November 2020)

Response to Missile Attacks

- Currently, Japan's Ballistic Missile Defense (BMD) is an effective multi-layered defense system with the upper tier interception by Aegis equipped destroyers and the lower tier by Patriot PAC-3, both interconnected and coordinated by the Japan Aerospace Defense Ground Environment (JADGE).
- In order to counter increasingly complex and diverse airborne threats, and minimize damage, the SDF will establish a structure to conduct integrated operation of various equipment for missile defense and air defense equipment, thereby providing persistent nation-wide protection from peacetime and also enhancing the comprehensive air and missile defense capability that can simultaneously deal with multiple, complex airborne threats.
- As for Aegis Ashore, its deployment process was suspended in June 2020. In December 2020, in order to respond to the increasingly severe security environment surrounding Japan more flexibly and effectively, a Cabinet decision was made to procure two Aegis system-equipped vessels.

Responses in the Domains of Space, Cyberspace and Electromagnetic Spectrum

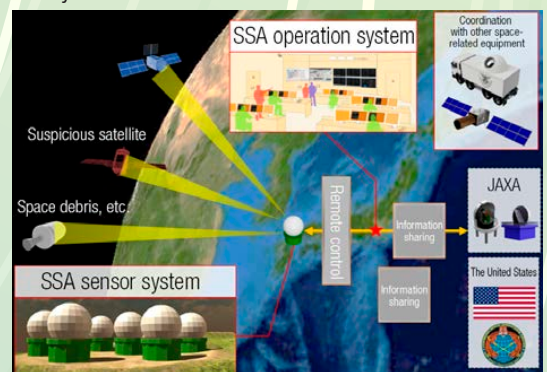
Responses in Space Domain

- In preparation for full-scale operations of the SSA system scheduled in FY2023, the MOD is working to deploy a radar and its operation system, which will monitor threats to Japanese satellites such as space debris.
- The Space Operations Group (tentative name) will be established to reinforce the unit that specializes in space domain missions.

Response in Cyber Domain

- The MOD/SDF has taken comprehensive measures such as ensuring the safety of information systems, and dealing with cyber attacks via specialized units.
- The MOD/SDF has held a cyber competition to identify highly skilled workforce with cybersecurity expertise and promoted the utilization of external human resources through, for example, initiatives to recruit a Chief Cyber Security Advisor with advanced knowledge.

SSA system



The JSDC Cyber Defense Command (tentative name) to be established in FY2021



Three Pillars of Japan's Defense (Means to Achieve the Objectives of Defense)

Response in Electromagnetic Domain

- The MOD/SDF will: enhance its ability to appropriately manage and coordinate the use of electromagnetic spectrum; strengthen information collection and analysis capabilities related to electromagnetic spectrum, and develop an information sharing posture; and strengthen capabilities to neutralize the radar and communications of opponents who intend to invade Japan.
- The SDF pushed forward the establishment of the GSDF Electronic Warfare Unit, the development of stand-off electronic warfare aircraft, and research on a high-power microwave system (HPM) and a high-energy laser system (HEL).

Response to Large-Scale Disasters (Including Response to COVID-19)

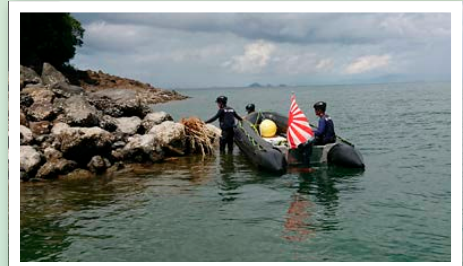
Response to Large-Scale Disasters (Including Response to COVID-19)

- The SDF, working in collaboration with local governments, engages in various activities such as search and rescue for disaster victims, ships, and aircraft in distress, as well as preventing epidemics.
- At the beginning of a disaster, the SDF maintains response readiness to any damage and need for activities while giving the first priority to life-saving activities. For livelihood support, the SDF will coordinate the division of roles, response policy, activity period, and other matters with relevant parties including the local governments and ministries concerned at the local response headquarters, etc.
- In FY2020, the SDF conducted 529 cases of disaster relief including for the Heavy Rain Event of July 2020 and Typhoon No. 10 (Haishen) of 2020.
- In order to prevent the spread of COVID-19, which has resulted in a global pandemic and become a serious security threat to the international community including Japan, the MOD/SDF carried out various activities including disaster relief operations in 35 prefectures by combining its strength.
 - The MOD/SDF conducted capacity building on infection protection for approximately 2,400 employees of local governments in 33 prefectures.*
 - Approximately 760 SDF personnel gave emergency assistance for patients in temporary accommodations in eight prefectures.
 - Approximately 90 SDF personnel conducted transfers of COVID-19 patients from hospitals to temporary accommodations in six prefectures.
 - The SDF conducted medical assistance in five prefectures.
 - The SDF set up a tent and implemented necessary maintenance for outdoor PCR tests in one prefecture.
 - Approximately 80 SDF personnel conducted transfers of patients on remote islands in five prefectures.
 - The SDF dispatched its own CT diagnosis vehicle in one prefecture.
- The SDF conducted disaster relief for avian influenza, Classical Swine Fever (CSF), forest fires, and heavy snowfall.

*The figures include the number of capacity building conducted by general orders and through intergovernmental cooperation.



GSDF personnel transporting relief supplies to isolated communities at the time of the Heavy Rain Event of July 2020 (July 2020)



MSDF personnel engaging in activities to save lives at the time of the Heavy Rain Event of July 2020 (July 2020)



GSDF personnel conducted capacity building for quarantine measures at Tokyo International Airport (April 2020)

SDF Activities since the Enforcement of the Legislation for Peace and Security

Asset protection of the units of the armed forces of the United States and other countries (Article 95-2 of the Self-Defense Forces Law)

- In 2020, the SDF conducted asset protection for U.S. military vessels and aircraft 25 times in total.

Chapter 2

Japan-U.S. Alliance

Significance of the Japan-U.S. Security Arrangements

- The Japan-U.S. Security Arrangements based on the Japan-U.S. Security Treaty, which marked the 60th anniversary in 2020, 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.

Outline of the Guidelines for Japan-U.S. Defense Cooperation

- The Guidelines, which provide the general framework and policy direction for the roles and cooperation of Japan and the United States, were formulated in 1978 and revised in 1997 and 2015.
- The current Guidelines, revised in 2015, set forth cooperation in all phases, from peacetime to contingencies, as well as cooperation in space and cyber domains, and manifest a strategic vision for a more robust Alliance and greater shared responsibilities.

Policy Consultations between Japan and the United States



Japan-U.S. Security Consultative Committee ("2+2") Meeting (March 2021)



Japan-U.S. Defense Ministerial Meeting (March 2021)

- In March 2021, Minister for Foreign Affairs Mr. MOTEGI Toshimitsu, Minister of Defense Mr. KISHI Nobuo, U.S. Secretary of State Antony Blinken, and U.S. Secretary of Defense Lloyd Austin held the Japan-U.S. Security Consultative Committee ("2+2") Meeting in Tokyo. Also, on the same day, Minister Kishi and Secretary Austin held the Japan-U.S. Defense Ministerial Meeting. Through these opportunities, the two countries agreed to further deepen their cooperation in strengthening the Alliance capabilities to deter and respond, and also reaffirmed and expressed the following key points.
 - The Ministers acknowledged that China's behavior, where inconsistent with the existing international order, presents challenges to the Alliance and to the international community;
 - The Ministers opposed any unilateral action that seeks to change the status quo, including in the East China Sea and the South China Sea, and expressed serious concerns about China's Coast Guard law;
 - The Ministers affirmed the importance of strengthening cooperation with various partners in the region and beyond to maintain and strengthen a "Free and Open Indo-Pacific";
 - The Ministers agreed on the importance of strengthening their readiness through various advanced exercises, including Japan-U.S. bilateral training.

Three Pillars of Japan's Defense (Means to Achieve the Objectives of Defense)

Strengthening Ability of Japan-U.S. Alliance to Deter and Counter Threats

- In order to ensure Japan's peace and security, Japan and the United States are advancing cooperation in various fields, including "Cooperation in Space and Cyber Domains and Others," "Comprehensive Air and Missile Defense," "Bilateral Training and Exercises," "Intelligence, Surveillance and Reconnaissance (ISR) Activities," "Maritime Security," "Logistics Support," and "Cooperation in Response to a Large-Scale Disaster in Japan."



SDF and U.S. Forces personnel taking part in a Japan-U.S. bilateral exercise



ASDF F-15 fighters and U.S. Air Force B-1 bombers conducting Japan-U.S. bilateral exercises

Strengthening and Expanding Cooperation in a Wide Range of Areas

- In order to create a desirable security environment including maintaining and enhancing the 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 bilateral activities in such areas as "Maintaining and Strengthening the Maritime Order" and "Humanitarian Assistance/Disaster Relief," and strengthening and expanding cooperation in the areas of "Defense Equipment and Technology Cooperation" and "Joint/Shared Use."

Steady Implementation of Measures Concerning the Stationing of the USFJ

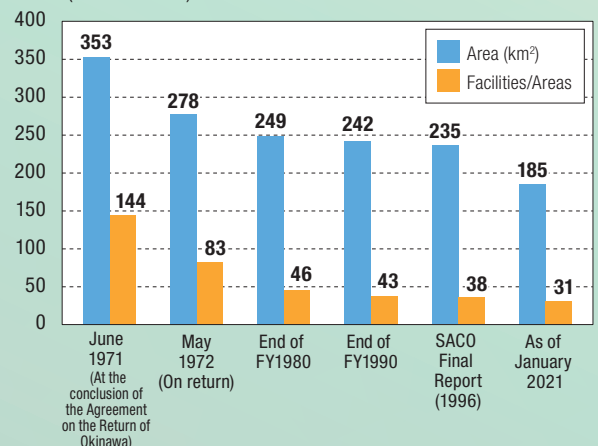
Stationing of the USFJ

- It is necessary to maintain the presence of the USFJ and its readiness to make rapid and agile responses in case of emergency in Japan and its surrounding areas even in peacetime, so that the Japan-U.S. Alliance can sufficiently function as deterrence contributing to the defense of Japan and regional peace and stability.
- Therefore, Japan accepts the stationing of the U.S. Forces based on the Japan-U.S. Security Treaty and it is a cornerstone of Japan-U.S. Security Arrangements.

Stationing of the U.S. Forces in Okinawa

- The stationing of the U.S. forces, including the U.S. Marine Corps, capable of dealing with a wide range of missions with high mobility and readiness, in Okinawa, a strategic location, further ensures the effectiveness of the Japan-U.S. Alliance, strengthens deterrence, and contributes greatly not only to the security of Japan but also to the peace and stability of the Indo-Pacific region.
- On the other hand, approximately 70% of USFJ facilities and areas (for exclusive use) are concentrated in Okinawa Prefecture, occupying approximately 8% of the land area of the prefecture and approximately 14% of the main island of Okinawa. Therefore, it is necessary to make utmost efforts to mitigate the impact on Okinawa, while also considering the above-mentioned security standpoints.

Changes in Number and Area of the USFJ Facilities and Areas (Exclusive Use) in Okinawa



- The relocation of MCAS Futenma holds more significance than merely moving the facility from one location to another. It serves to reduce the functions and area of the bases in Okinawa, and contributes greatly to mitigating the impact on the prefecture.
- For the construction of the Futenma Replacement Facility, landfill construction is in progress in the waters south of Camp Schwab of the U.S. Forces. In April 2020, the Okinawa Defense Bureau submitted to the Governor of Okinawa Prefecture the Landfill Permit Revision Request given the additional implementation of the soil improvement work, etc., based on the Act on Reclamation of Publicly-owned Water Surface.

November 2018



May 2021



The progress of landfill construction in the waters south of Camp Schwab

- The following progress has been made involving the return of USFJ land:
 - March 2015: West Futenma Housing Area within Camp Zukeran (Camp Foster) (approximately 51 ha) was returned.
 - December 2016: A major portion of the Northern Training Area (approximately 4,000 ha) was returned. This is the largest of its kind since the reversion of Okinawa to the mainland.
 - July 2017: A portion of MCAS Futenma (approximately 4 ha of land along Ginowan City road 11) was returned.
 - March 2018: A portion of Makiminato Service Area (Camp Kinser) (approximately 3 ha of land for the widening of Route 58) was returned.
 - March 2019: A portion of Makiminato Service Area (Camp Kinser) (approximately 2 ha of land near Gate 5) was returned.
 - March 2020: Portions of land at Camp Zukeran (Warehouse Area of Facilities and Engineering Compound) (approximately 11 ha) were returned.
 - December 2020: A portion of MCAS Futenma (approximately 0.1 ha of land near Samashita Gate) was returned.

Stationing of the U.S. Forces in Regions Other than Okinawa

- In regions other than Okinawa, the MOD is implementing measures to secure the stable stationing of the U.S. Forces by maintaining its deterrence while trying to mitigate the impact on local communities. It has continued to work on the realignment of the USFJ and its facilities and areas.



Three Pillars of Japan's Defense (Means to Achieve the Objectives of Defense)

Chapter 3

Security Cooperation

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

Efforts under the Vision of a "Free and Open Indo-Pacific"

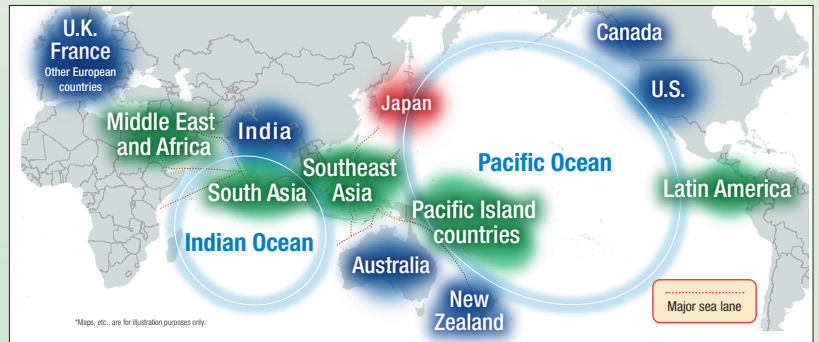
● In line with the vision of a "Free and Open Indo-Pacific," the MOD/SDF will create a desirable security environment for Japan by strategically promoting multi-faceted and multi-layered security cooperation, strengthening bilateral/multilateral defense cooperation and exchanges with the countries in the Indo-Pacific region.

Three pillars of the vision

- (i) Promotion and establishment of the rule of law, freedom of navigation and free trade
- (ii) Pursuit of economic prosperity (improving connectivity, etc.)
- (iii) Commitment to peace and stability

MOD's Approach to the Initiatives

- Securing the stable use of major sea lanes by way of defense cooperation and exchange activities
- Preventing contingencies through confidence building and mutual understanding
- Contributing to peace and stability through active engagement in the region, in cooperation with partner countries



Promotion of Defense Cooperation and Exchanges

- The MOD/SDF promotes bilateral defense cooperation and exchanges using the optimal combination of various cooperative means, while taking into account matters such as regional situations, the situations of each country and their relationships with Japan.
- 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 attempts to change the status quo by coercion and to create faits accomplis.
- **Australia:** The MOD further enhanced various cooperation as "Special Strategic Partners" through events such as a face-to-face Defense Ministerial Meeting (October 2020) held for the first time since the outbreak of COVID-19.
- **India:** The MOD promoted cooperation in a wide range of fields including the signing of the Acquisition and Cross-Servicing Agreement (ACSA) in September 2020 and Japan-U.S.-India-Australia Multilateral Exercise in November 2020. The MOD also pursues quadrilateral cooperation among Japan, the United States, Australia, and India.
- **ASEAN member states:** In addition to high-level bilateral dialogues and consultations, the MOD has promoted more substantial cooperation such as capacity building programs, multilateral exercises, and defense equipment and technology cooperation, while also strengthening cooperation under multilateral frameworks.
- **ROK:** In light of the continued negative response by the ROK defense authorities, the MOD continues to strongly request proper responses from the ROK side so as not to damage Japan-ROK bilateral relations and Japan-ROK-U.S. trilateral relations.
- **European countries, Canada, and New Zealand:** The MOD advanced defense cooperation and exchanges with a focus on initiatives that address common global security issues such as responses to illicit ship-to-ship transfers.
- **China:** The MOD has conveyed Japan's strong concerns over China's activities in the East and South China Seas, and the recent Coast Guard Law of China. The MOD/SDF has also promoted mutual understanding and confidence building between the defense authorities of the two countries by holding multi-layered dialogues and exchanges, and coordinating the early establishment of a hotline.
- **Pacific Island Countries:** MOD works in close cooperation with Pacific Island countries in preparation for the Japan Pacific Islands Defense Dialogue, which will be the first multilateral defense ministerial meeting hosted by Japan.
- **Middle Eastern Countries:** MOD/SDF promotes the holding of online high-level bilateral dialogues and consultations.



Japan-Australia Defense Ministerial Meeting conducted face-to-face (October 2020)



Japan-U.S.-India-Australia Multilateral Exercise "Malabar 2020" (November 2020)



Minister of Defense Kishi holding a video teleconference with the Chinese State Councilor, who also serves as the Chinese Minister of National Defense (December 2020)

Promotion of Multilateral Security Cooperation

- Multilateral framework initiatives, such as the ASEAN Defence Ministers' Meeting (ADMM)-Plus and the ASEAN Regional Forum (ARF) have made steady progress and served as an important foundation for dialogue and cooperation and exchanges on the security of Asia-Pacific.
- Based on Vientiane Vision 2.0, a guideline for future ASEAN-Japan defense cooperation, Japan has, in addition to bilateral cooperation, strengthened cooperation under multilateral frameworks, and announced the launch of the "Japan-ASEAN Cyber Security Training Program for Defense Authorities."
- Moreover, Japan has proactively participated in international conferences hosted by private and other organizations, as well as service-to-service exchange initiatives such as multilateral conferences and exercises.



Minister of Defense Kishi participating in the 7th ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus) (online meeting; December 2020)

Proactive and Strategic Initiatives for Capacity Building

- Since 2012, the MOD/SDF has provided capacity building in such areas as HA/DR, peacekeeping operations (PKO), and maritime security to 15 countries and one organization in the Indo-Pacific and other regions.
- Taking into account the impact of the COVID-19 pandemic, the MOD/SDF has been incorporating online lectures and training as new methods to be used in capacity building programs since 2021.
- Between January 2020 and March 2021, the number of capacity building programs conducted by means of dispatch was seven (four countries, 33 officials), and the number of those conducted by means of invitation was four (three countries, one organization and 57 trainees). The number of online lectures and practices was two with two countries.



GSDF personnel providing online lectures on road surveying to the Royal Cambodian Armed Forces (February 2021)

Ensuring Maritime Security

- For Japan, a maritime nation, strengthening the order based on fundamental norms, such as the rule of law and the freedom of navigation, as well as ensuring safe maritime transport, is the foundation for its peace and prosperity, which is extremely important.
- The SDF has been dispatching the Deployment Surface Force for Counter Piracy Enforcement, the Deployment Air Force for Counter Piracy Enforcement, and the Deployment Support Group 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.
- In addition to strengthening cooperation with coastal states of the Indo-Pacific region through bilateral/multilateral training and port calls, the MOD has been implementing capacity building in maritime security, and working on cooperation for maritime security within regional security dialogue frameworks such as the ADMM-Plus.



Destroyer JS "Onami" engaging in a counter-piracy operation in the Gulf of Aden (June 2020)

Cooperation in Use of Space and Cyber Domains

- Regarding cooperation in use of space domain, the MOD/SDF has promoted cooperation in various fields including multilateral sharing of views on threat awareness in outer space through participating in consultations with relevant countries and the Schriever Wargame, a multinational tabletop exercise on space security.
- Regarding cooperation in use of cyber domain, the MOD has held cyber dialogues with the respective defense authorities of the United States, the United Kingdom, Australia, and others, to share threat perceptions and exchange views on response to cyber attacks. In addition, the MOD is strengthening cooperation with related countries by officially participating for the first time in "Locked Shields 2021," a cyber defense exercise organized by the NATO's Cooperative Cyber Defence Centre of Excellence (CCDCOE).

Initiatives for Arms Control, Disarmament and Non-Proliferation

- Japan actively participates in international initiatives for arms control, disarmament, and non-proliferation pertaining to the proliferation of WMDs, missiles that can deliver them, and the proliferation of not only conventional arms but also goods and sensitive technologies of potential military use. In addition, Japan has also been proactively involved in international discussions related to Lethal Autonomous Weapons Systems (LAWS) in recent years.

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 ODA for resolving the fundamental causes of conflicts, terrorism and other problems.
- For the SDF to be a proactive contributor to international peace cooperation activities, all three branches of the SDF, namely the GSDF, MSDF and ASDF, designate dispatch stand-by-units, and ensure that the designated units are always ready to be deployed. In addition, the SDF works on a daily basis to be fully prepared for any future operations such as enhancing information-gathering abilities at dispatch destinations, providing training for SDF personnel to be dispatched to international peace cooperation activities, and supporting their training.

Dispatch to the Multinational Force and Observers (MFO)

- In 2019, the Government of Japan decided to dispatch staff officers, and later two staff officers were dispatched to the MFO headquarters as the first “Internationally Coordinated Operations for Peace and Security.”
- The dispatched officers engage in liaison and coordination between Egypt, Israel, and the MFO as a Deputy Chief of Liaison and an Assistant Liaison Operation Officer at the MFO headquarters, which is located in the south camp at Sharm El-Sheikh in the southern part of the Sinai Peninsula.



GSDf personnel serving at the MFO headquarters (June 2020)

The United Nations Mission in the Republic of South Sudan (UNMISS)

- The peace and stability of South Sudan is not only essential for the country itself but also for peace and stability in Africa as a whole; it is a crucial issue that should be dealt with by the international community.
- The MOD/SDF currently dispatches four GSDF officers (logistics, intelligence, engineering, and aviation operations officers) to the UNMISS headquarters, thereby contributing to the activities of UNMISS.



GSDf personnel serving at the UNMISS headquarters (November 2020)

Support to the UN Triangular Partnership Project (UNTPP)

- The UNTPP was founded using funds from Japan as a project to support the trainings of prospective PKO personnel by the UN Department of Operational Support. Since 2015, Japan has dispatched a total of 164 GSDF personnel to Africa to provide nine training sessions on the operation of heavy equipment for a total of 277 personnel from eight African countries.
- Considering that 30% or more of PKO personnel are from Asia, Japan has dispatched a total of 66 GSDF personnel to Vietnam and implemented three training sessions on the operation of heavy equipment for 56 personnel in nine countries within Asia and the surrounding regions since 2018.
- Japan dispatched two GSDF personnel (doctors) as instructors to the first United Nations Field Medical Assistant Course (UNFMAC), held in Uganda in 2019.

International Disaster Relief Activities

- To contribute to the advancement of international cooperation, the SDF has engaged in international disaster relief activities proactively from the viewpoint of humanitarian contributions and improvement of the global security environment.

Enhancement of Human Resource Base and Medical Functions

Reinforcing Human Resource Base

- The NDPG specifies that the core element of defense capability is SDF personnel, and that securing human resources for SDF personnel and improving their ability and morale are essential to strengthening defense capability. This has become an imminent challenge in the face of a shrinking and aging population with the declining birth rate. Also, in light of the sustainability and resilience of defense capability, the SDF has been working even further to reinforce the human resource base.

Recruitment and Employment

- In order to recruit capable human resources with a strong determination to join the SDF, the MOD/SDF maintains Provincial Cooperation Offices in 50 locations throughout Japan to attentively and perseveringly conduct recruitment and employment of SDF personnel obtaining cooperation from local governments and schools and support from recruitment counselors.

Efforts including Effective Use of Human Resources

- With regard to the personnel structure of the SDF, the full number of SDF personnel has been reduced. At the same time, in order to handle increasingly sophisticated defense equipment and the diversification and internationalization of SDF missions, for the purpose of further utilizing older human resources who have plenty of knowledge, skills and experience, the MOD/SDF has gradually raised the retirement age of each rank and is promoting the expansion of re-enrolment and the utilization of the skills of retired SDF personnel.
- In addition, the SDF promotes automation and manpower saving that leverage technological innovations such as artificial intelligence. Furthermore, in order to ensure an adequate operation ratio with a limited number of personnel, some MSDF vessels have introduced a system of rotating shift duty among multiple teams of crews. This reduces the overall number of offshore duty days per crew, thereby improving the living and working conditions.

Improvement of Living and Work Environment and Treatment

- To ensure readiness, the SDF has accelerated its acquisition and renewal of the necessary barracks and housing, and also promoted measures for deteriorated and earthquake-resistant facilities; additionally, it has steadily renewed worn-out, living-related and work equipment, and secured the requisite amount of daily consumables.
- In order to ensure appropriate treatment in accordance with the special nature of their missions including associated risks and the characteristics of the area where the office is located, the SDF is working to make improvements to special work allowance, etc., procure portable beds and better emergency rations to improve their ability to respond to disasters, and implement measures concerning honors and privileges, including the enhancement of defensive meritorious badges.

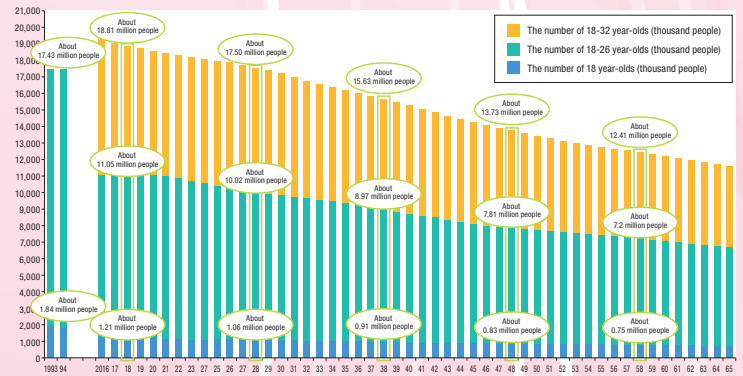
Initiatives to Maintain Rigorous Discipline

- In order to eradicate disciplinary violations such as assault, injury and workplace harassment, the MOD/SDF has tightened the standards of disciplinary punishment, and taken a zero-tolerance approach. In addition to implementing various measures to improve and reinforce consultation systems, including providing various forms of education on the topic for SDF personnel, and establishing a permanent "MOD workplace harassment hotline" and a consultation service provided by alliance lawyers.

Initiatives to Prevent Suicide among SDF Personnel

- In order to prevent suicide, the MOD/SDF pays full attention if SDF personnel have any trouble at work and/or home by conducting an active interview, and takes positive measures to advise those with symptoms of mental illness to go for outside counselling, and/or to get a medical consultation at medical institutions.

Changes in the Number of People Eligible to Join the SDF



Material sources: The numbers for FY1993 and FY1994 are based on "Population Estimates of Japan 1920 - 2000" and "Current Population Estimates," Statistics Bureau, Ministry of Internal Affairs and Communications. Data from FY2016 onward are based on "Population Projection for Japan" (medium estimates in April 2017), National Institute of Population and Social Security Research.



Online recruitment session for high school students



SDF personnel receiving harassment prevention education

Working Style Reform for the Promotion of Work-Life Balance

Further Promotion of Work-Life Balance and Women's Participation

- The MOD/SDF is making efforts to promote correcting long working hours, introducing more flexible working hours and workplaces, and taking leave to ensure proper work-life balance so that every member can exert his/her full potential.
- In particular, in March 2021, the MOD revised the “Action Plan for Promoting the Active Participation of Female Employees and Work-Life Balance at the MOD” and is aiming to expand and enhance initiatives under the new action plan by incorporating thorough management of work hours and management reforms for improving administrative staff’s management ability.

Reform to Promote Women's Participation

- In terms of employing and promoting female SDF personnel, the MOD/SDF sets out a personnel management policy to ensure equal opportunity between men and women and assign the right person to the right place based on the person’s motivation and ability/aptitude.
- The MOD/SDF has been reviewing the restriction of assignment of female personnel. With first female personnel assigned to be a submarine crew member in October 2020, the restriction against females was completely removed with the exception of the units where female personnel cannot be assigned for reasons of maternity protection (a part of the GSDF Nuclear Biological Chemical (NBC) Weapon Defense Unit [chemical] and Tunnel Company Units).



The annual “Competition for Initiatives to Promote Working Style Reform at the Ministry of Defense,” which honors initiatives conducted by each organization in the MOD/SDF that promoted business efficiency



First female submarine crew member (October 2020)

Enhancement of Medical Functions

- For the SDF to perform its mission, the SDF makes continuous efforts to appropriately manage the health of its personnel and ensure they remain in good health, as well as to enhance and strengthen its capabilities in military medicine for maximally protecting the lives of the personnel who engage in a variety of services.
- Under the circumstances where the SDF’s missions are becoming more diverse and internationalized, the SDF aims to appropriately and accurately carry out various medical activities, such as medical support in disaster relief and international peacekeeping activities, and capacity building in the medical field.
- As part of the MOD/SDF’s response to the COVID-19 outbreak, the SDF hospitals and the National Defense Medical College Hospital (NDMCH) have been accepting COVID-19 patients since February 2020. As of March 31, 2021, the SDF Central Hospital, the SDF hospitals in Sapporo, Misawa, Sendai, Yokosuka, Fuji, Hanshin, Fukuoka, Sasebo, Kumamoto, Beppu, and Naha, as well as the NDMCH accepted a total of 1,708 COVID-19 patients.
- In particular, the SDF Central Hospital and the NDMCH have been designated as Medical Institutions for Type I Infectious Diseases, and have expanded their capacity to accept COVID-19 patients by including beds for general patients in response to the increase in patient numbers.
- In addition, in order to accelerate vaccination against COVID-19, the SDF opened up their large-scale vaccination centers in Tokyo and Osaka, on May 24, 2021, and is currently conducting vaccinations.



Medical and nursing officers engaging in the treatment of COVID-19 patients



Operations at an SDF large-scale vaccination center

Chapter 2

Measures on Defense Equipment and Technology

Reinforcing Technology Base

- Review of the Medium- to Long-Term Defense Technology Outlook is now underway in order to ensure Japan's technological superiority in the strategically important equipment and technology field, including technologies pertaining to new domains and other potentially game-changing important technologies.
- In FY2021, the MOD established the Future Capabilities Development Center at the Acquisition, Technology & Logistics Agency in order to reinforce the research and development system for advanced technology. In addition, the Director for Advanced Technology Strategy, who engages in planning for research and analysis of advanced technology trends in Japan and overseas, and the Technology Collaboration Support Division, which promotes the application of technical outcomes from advanced research conducted by universities, private companies, and national research institutes, have been established.

Optimizing Equipment Procurement

- As of the end of March 2021, the MOD has been promoting effective and efficient equipment acquisition by selecting 21 items for major programs designated for project management. At the same time, the MOD strives to cut equipment procurement costs by making bulk orders utilizing long-term contracts.
- To enhance the level of performance management, the MOD makes every effort. The specific efforts include constant monitoring of goods and service deliveries from both sides, facilitating the internal management system concerning the execution process of FMS procurement, and strengthening cooperation with the U.S. government through close Japan-U.S. consultations.

Strengthening Defense Industrial Base

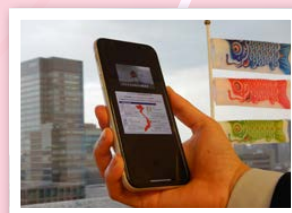
- In order to strengthen Japan's defense industrial base, the MOD identifies four lines of effort: (1) reforming the existing contract system towards creating a competitive environment among defense companies; (2) strengthening the risk management of the defense equipment supply chain; (3) further participation of Japan's defense industry in sustainment and maintenance of imported equipment, etc.; and (4) promoting appropriate overseas transfer of defense equipment under the Three Principles on Transfer of Defense Equipment and Technology.



Minister of Defense Kishi receiving reports on the outcome of opinion exchanges between the Acquisition, Technology & Logistics Agency and the Keidanren (Japan Business Federation) Committee on Defense Industry (December 2020)

Defense Equipment and Technology Cooperation

- Based on the Three Principles on Transfer of Defense Equipment and Technology, Japan promotes cooperation in defense equipment and technology with other countries in order to contribute to the maintenance and strengthening of defense technological and industrial bases, as well as contributing to the promotion of our national security, peace and international cooperation.
 - In August 2020, the contract between the Department of National Defense, the Republic of the Philippines and Mitsubishi Electric Corporation (MELCO) was concluded to supply four MELCO manufactured air surveillance radar systems with a total value of approximately one hundred million U.S. dollars (USD 100,000,000). This is the first overseas transfer case of a complete defense equipment system newly manufactured by a Japanese company since the formulation of the Three Principles on Transfer of Defense Equipment and Technology in 2014.
 - As opportunities to improve public and private knowledge on the overseas transfer of defense equipment, the MOD has held webinars one after another on precedents in the private business sector and the current status of defense equipment and technology cooperation. (So far, this webinar has been held for India in December 2020 and Vietnam in March 2021.)
 - In cooperation with trading companies, and manufacturing companies, the MOD has conducted Feasibility Studies to grasp the potential needs of target countries and carry out activities for proposals since fiscal year 2020 (conducted for India, Indonesia, Vietnam and Malaysia).



Vietnam webinar on the overseas transfer of defense equipment



The Philippine Air Force visiting the SDF radar systems

Enhancing Intelligence Capabilities

- 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 necessary to grasp medium- to long-term military trends in the neighboring countries of Japan and to detect the indications of various situations promptly. To this end, the MOD/SDF is making efforts to collect information swiftly and accurately daily by using various methods.
- Examples of intelligence collection means used by the MOD/SDF include: (1) collecting, processing and analyzing military communications and signals emanating from electronic weapons in the air over Japan; (2) collecting, processing, and analyzing data from various imagery satellites (including Information Gathering Satellite); (3) surveillance activities by ships, aircraft and other assets; (4) collecting and organizing a variety of open source information; (5) information exchanges with defense organizations of other nations; and (6) intelligence collection conducted by defense attachés and other officials.
- The MOD is planning to newly dispatch one defense attaché to New Zealand and Spain respectively, and dispatch one additional attaché to Israel, in FY2021, to reinforce cooperation with the Oceania region and improve intelligence collection related to Europe and the Middle East.



Defense Attaché to Israel Colonel Hiramitsu (right end) participating in an online Politico-Military Dialogue (PM) [The Ministry of Defense of the State of Israel]

SDF Training and Exercises for Maintaining and Further Enhancing High-Level Skills

Training and Exercises by Each SDF Service

Training and Exercises

To fulfill its mission of defending Japan, the SDF needs to ensure that commanders and personnel possess high-level credentials and abilities even under normal circumstances, and that its units maintain high-level skills, so that the SDF can adopt a robust defense posture. This work will serve as deterrence to discourage other countries from having any intention to invade Japan. The SDF strengthens the Japan-U.S. Alliance capabilities to deter and respond by steadily implementing bilateral training and exercises. In addition, the SDF raises its presence from peacetime and demonstrates the intention and capabilities of Japan by actively conducting and joining multilateral training and exercises, based on the vision of the Free and Open Indo-Pacific (FOIP).

Major Bilateral/Multilateral Training and Exercises of SDF Service

- The SDF conducts various training and exercises such as the Japan-U.S. bilateral joint exercise “Keen Sword (field training exercise)” to enhance response capabilities for a range of contingencies and bolster the ability of the Japan-U.S. Alliance to deter and respond.
- The MOD/SDF actively carries out training and exercises with relevant countries such as the Japan-U.S.-India-Australia Multilateral Exercise “Malabar 2020” to contribute to upholding and reinforcing a “Free and Open Indo-Pacific.”



U.S. marine and GSDf personnel carry out training at a remote island as part of “Keen Sword (field training exercise)” (October 2020)

Development of an Environment for Various Training and Exercises

SDF training is planned and conducted under conditions as close as possible to actual combat situations. However, it is necessary to further expand and enhance the training environment to maintain and improve the readiness of the SDF. Against this background, the MOD promotes initiatives to expand and enhance the foundation for training both in Japan and abroad with the aim of conducting efficient and effective training and exercises.

Chapter 5

Initiatives on Coexistence with Regional Society and the Environment

Measures Concerning Harmony with Regional Society and the Environment

Supporting Civilian Life

The MOD/SDF conducts activities to support the lives of citizens in a range of fields, in response to requests from local governments and relevant organizations. Such activities contribute to further deepening the trust in the SDF, and provide SDF personnel with pride and confidence.



NAMIKI Tsukimi continuing to work hard, aiming for the Olympics

Support for the Japanese Antarctic Research Expedition

The MOD/SDF supports the scientific research project in the Antarctic conducted by the Ministry of Education, Culture, Sports, Science and Technology. The support for the 62nd Antarctic Research Expedition, which started in November 2020 and involved travelling approximately 30,000 km, has greatly contributed to the promotion of the Japanese Antarctic Research Expedition.



Support for the Antarctic Research Expedition

Addressing Environmental Issues

With the Government as a whole promoting concrete measures towards accelerating initiatives related to the Sustainable Development Goals (SDGs) and realizing a decarbonized society by 2050, the MOD, as part of the Government, also needs to contribute to solving environmental problems, while at the same time implementing measures with more focus on the coexistence of SDF/US Forces facilities and areas with surrounding areas.

Specifically, the MOD established the MOD Climate Change Task Force, which strongly promotes measures against global warming ministry-wide, in May 2021. In addition to which the MOD will reorganize the Bureau of Local Cooperation in FY2021 in order to develop the organization so as to be able to centrally and effectively respond to environmental issues.

Public Relations Activities, Public Records and Archives Management, Information Disclosure, and Related Activities

Various Public Relations Activities

- Providing Information Both Domestically and Internationally

The MOD/SDF conducts active PR activities through official websites, social media (Social Networking Services) and video distribution, utilizing the Internet.

The MOD has also been making efforts to provide accurate information in a more extensive and timely fashion, by creating brochures and PR videos, as well as providing assistance in editing the PR magazine “MAMOR” and cooperation on media coverage.

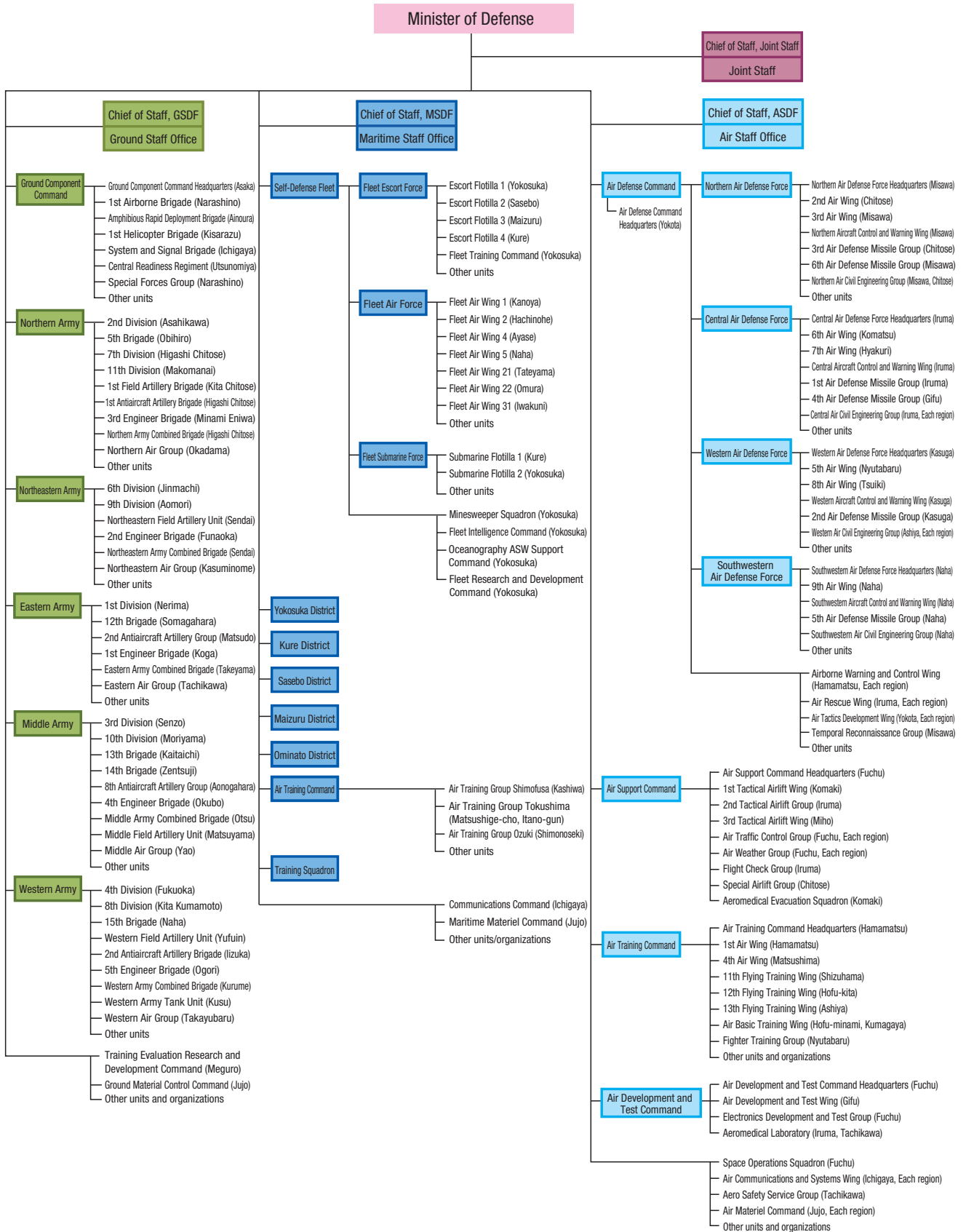


Air review (November 2020)

Initiatives for Public Document Management and Information Disclosure

The MOD/SDF is working on the management of public documents and proper response to requests for information disclosure by reforming the awareness of personnel and the organizational culture, enhancing the checking framework, and implementing other efforts, in order to realize proper management of public records and archives.

Organizational Diagram of the Self-Defense Forces



Location of Principal SDF Units [for illustrative purposes] [As of March 31, 2021]



日本の防衛
2●21



防衛省・自衛隊
MINISTRY OF DEFENSE