Section 2 Effective Deterrence and Response

The "National Defense Program Guidelines (NDPG) for FY2012 and beyond" defines effective deterrence and response as one of the roles of the defense forces of Japan. This section explains points of priority for the effective performance of this role. The explanations are illustrated with examples of responses provided by the SDF in diverse contingencies under a comprehensive operational system.

1 Ensuring Security of Sea and Airspace Surrounding Japan

In order for the SDF to respond swiftly to various contingencies around Japan, which consists of more than 6,000 islands and is surrounded by a vast body of water, it is extremely important to ensure the safety of the country's territorial waters and airspace through constant, ongoing activities implemented by the SDF, including continuous intelligence-gathering, patrol and surveillance activities in Japan's territorial waters and airspace. The NDPG also places special importance on these efforts. Through such activities, Japan also contributes to the stabilization of the security environment in the Asia-Pacific region.

1 Watch and Surveillance in Sea Areas Surrounding Japan

The MSDF patrols the sea areas surrounding Hokkaido, the Sea of Japan, and the East China Sea, using P-3C patrol aircraft to monitor the numerous vessels that sail through those waters. Furthermore, surveillance activities such as surveillance of a possible missile launch are conducted with the flexible use of destroyers and aircraft as required. Thus, a state of readiness is maintained for responding quickly to situations in areas surrounding Japan. In addition, GSDF coastal surveillance units and MSDF security posts conduct 24-hour watch and surveillance activities in the major sea straits.
(See Fig. III-1-2-1)

A P-3C fixed-wing patrol aircraft conducting surveillance activities

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

The ASDF conducts daily 24-hour surveillance of Japan's territorial and adjacent airspace using nationwide radar, E-2C early warning aircraft and E-767 early warning and control aircraft. Through this, it is possible to detect and identify aircraft flying close to Japan and, if any aircraft suspected of violating Japan's territorial airspace are detected, fighters on standby will be scrambled to approach them to assess the situation and monitor the aircraft as necessary. In the event that an airspace violation does occur, an evacuation warning will be issued.

In FY2011, the ASDF scrambled 425 times[1].
(See Figs. III-1-2-2, III-1-2-3)

3 Response to Submarines Submerged in Japan's Territorial Waters

With respect to foreign national submarines navigating underwater in Japan's territorial waters[2], an order for maritime security operations[3] will be issued promptly. The submarine will

1 Share by country of aircraft subject to emergency scrambles: Russia, approximately 58%; China, approximately 37%; Taiwan, approximately 1%; and others, approximately 4%.

2 Including territorial waters and inland waters.

3 Maritime security operations (Article 82 of the SDF Law) refer to actions taken at sea by the SDF with the particular need to protect lives or property, or maintain peace and order. Approval by Prime Minister is required.

Fig. Ⅲ−1−2−1 Image of Warning and Surveillance of the Sea and Airspace Surrounding Japan

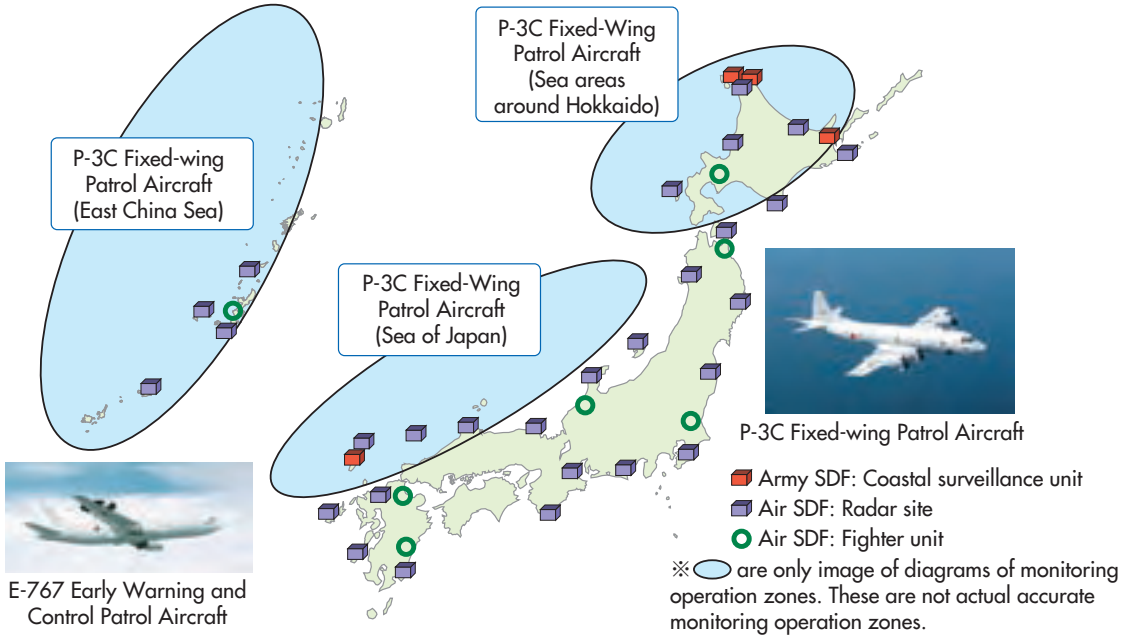


Fig. Ⅲ−1−2−2
Number of Scrambles in the Last Decade and its Breakdown

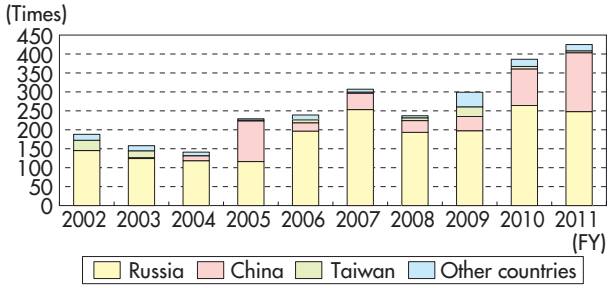
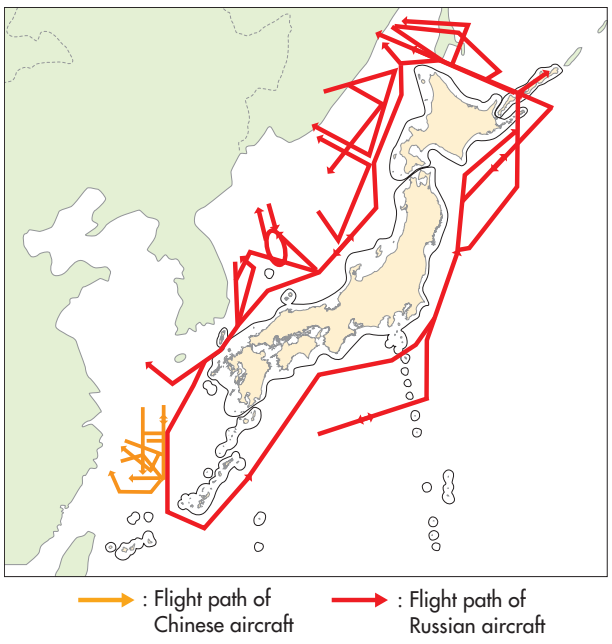


Fig. Ⅲ−1−2−3
Example of Flight Patterns of Russian and Chinese Aircraft against Which Scrambles Were Directed



be requested to navigate on the surface of the water and show its flag, in accordance with international law, and in the event that the submarine does not comply with the request, it will be requested by the SDF to leave Japanese territorial waters.

See References 22, 23

The MSDF is enhancing capabilities for detecting, identifying, and tracking foreign submarines navigating underwater in the territorial waters of Japan, as well as making Japanese government intentions clear to these submarines, and improving capabilities for responding to them in shallow water areas.

4 Response to Armed Special Operations Vessels

(1) Basic Concept

The Japan Coast Guard, as a police organization, is primarily responsible for responding to suspicious armed special operations vessels (unidentified vessels). However, in the event that it is deemed extremely difficult or impossible for the Japan Coast Guard to respond to a situation, an order for maritime security operations will be issued in a timely manner and the SDF will respond to the situation in cooperation with the Japan Coast Guard.

See References 22, 23

Column VOICE Commentary Q&A

Voice of a Pilot Engaging in Air Scrambles

Yuta Yamazaki, First Lieutenant, 204th Air Squadron, 83rd Air Wing

As a pilot of fighter aircraft (F-15) based at the Air SDF Naha Airbase, I am engaging in the alert mission in order to scramble against intruding aircraft in the Southwestern region. A scramble is an important mission concerning national authority. Once a scramble order has been issued, we must scramble against aircraft of unidentified nationality approaching Japanese airspace as soon as possible. Although this is a very difficult mission with an incessant feeling of strain, I feel strong satisfaction and pride in performing it.

The writer sitting in the cockpit of F-15 fighter aircraft

A formation of F-15s

I remember an occasion in which I felt my legs shaking with nervousness at my first sight of an aircraft of unidentified nationality during a scramble soon after I was assigned to the alert mission. Any action taken by us could trigger an international dispute. We cannot afford to make a mistake. I always do my job while telling myself to act calmly and carefully.

In the Southwest region in recent years, activities by neighboring countries have become brisk, leading to an increase in the number of scrambles. The Southwest region is certain to become an increasingly critical area from the perspective of national defense. I will continue self-improvement efforts with a view to becoming a tough fighter pilot.

In light of lessons learned from the incident involving an unidentified vessel off Noto Peninsula in 1999[4] and the incident involving an unidentified vessel in the sea southwest of Kyushu in 2001[5], the Japanese Government has been taking all necessary precautionary measures in order to effectively and safely deal with unidentified vessels, while the Ministry of Defense and the SDF have strengthened cooperation with other relevant ministries and agencies.

4 An SDF patrol aircraft (P-3C) discovered two unidentified vessels in a surveillance operation in Japanese territorial waters east of the Noto Peninsula and west of Sadogashima Island. These were suspected to be North Korean spy ships disguised as Japanese fishing vessels. The two vessels were pursued around the clock by patrol vessels, destroyers, and aircraft but fled to outside the air defense identification zones (ADIZ). They are presumed to have reached a port in the northern part of North Korea.

5 An SDF patrol aircraft (P-3C) discovered an unidentified vessel in a surveillance operation and monitored it with patrol vessels and aircraft. The vessel did not stop despite repeated orders by the Japan Coast Guard. As a result, the JCG fired warning shots after alerting the vessel. However, the vessel continued to make its getaway and made an armed attack on the patrol ship which fired shots in self-defense. The vessel subsequently exploded from possible self-destruction and sunk. Based on facts revealed in the investigation process the vessel was identified as a North Korean spy ship. Further, in 2002, a patrol aircraft (P-3C) discovered an unidentified vessel in waters approximately 400 km north-northwest off the Noto Peninsula (beyond the exclusive economic zone of Japan) in a surveillance operation. The vessel was tracked and observed by patrol vessels of the Japan Coast Guard, destroyers and aircraft.

(2) Ministry of Defense and SDF Efforts to Respond to Armed Special Operations Vessels

a. Enhancement of Equipment

The MSDF is taking the following steps: 1) deployment of missile boats with improved capability[6]; 2) establishment of the MSDF Special Boarding Unit[7]; 3) equipment of destroyers with machine guns; 4) furnishing forcible maritime interdiction equipment (flat-nose shells)[8]; and 5) improving the sufficiency ratio of essential military vessel personnel.

b. Measures for Strengthening Cooperation with the Japan Coast Guard

The Ministry of Defense and Japan Coast Guard carry out regular mutual training, information exchange, joint exercises, etc. In 1999, the Defense Agency prepared the "Manual on Joint Strategies concerning Unidentified Vessels" with the Japan Coast Guard stipulating the communications protocol and initial response procedures for when unidentified vessels are discovered, and the division of responsibility (joint response procedures), etc., before and after orders are issued for maritime security operations.

Based on the manual, the MSDF and the Japan Coast Guard carry out joint exercises involving pursuit and capture guidelines for unidentified vessels and communications, etc., strengthening cooperation between the two organizations.

2 Response to Attacks on Japan's Offshore Islands

The 2010 NDPG offers the following description of the geographical characteristics of Japan: "Japan is geographically surrounded by water and has a long coastline and numerous islands." In particular, invasion of these islands can be anticipated as one form of armed attack against Japan.

1 Response of the SDF

In order to respond to attacks on islands, it is important to detect signs at an early stage through activities routinely conducted by the SDF including continuous intelligence patrols and surveillance activities. Response to such attacks has many points in common with ground defense strategy (see Section 2-8), but if signs of attack are detected in advance, operations will be conducted to prevent invasion of the enemy forces, and when no signs of aggression are detected in advance and islands are occupied, operations will be conducted to defeat the enemy.

See References 22, 23

Joint operations of integrated Ground, Maritime, and Air SDF are particularly important in the implementation of such strategies. Such joint operations will enable the SDF to swiftly deploy and concentrate mobile troops, and to prevent and destroy enemy forces through cooperation with routinely deployed troops. When implementing such operations, it is important to establish air-defense preparedness in the airspace

GSDF troops land alongside U.S. Marines in a joint training exercise in the U.S.A.

E-2C airborne early warning aircraft conducting surveillance in the southwest region

6 Six vessels have been deployed by March 2004 with the following main improvements: 1) 62-caliber 76 mm rapid-fire guns installed, 2) improved livability through enlargement of the hull, 3) expansion of the cruising range, 4) bullet-proof measures implemented on the bridge, and 5) fitted with night vision devices.

7 A special unit of the MSDF was newly established in March 2001 to deter expected resistance, and disarm suspicious vessels in the event of onboard inspections under maritime security operations.

8 The flat front edge of the destroyer prevents a non-bursting shell from scattering when launched from the 76-mm gun equipped on the ship.

Column VOICE Commentary Q&A

Voice of SDF Personnel Stationed on Remote Island Bases -Tsushima, Miyakojima and Minamitorishima Islands-

Japan is comprised of more than 6,000 islands and is surrounded by the vast seas. The total area size of Japan's territorial waters and exclusive economic zones is as large as approximately 4.47 million square kilometers, the sixth largest in the world. On remote numerous islands which constitute the Japanese territories, a large number of SDF personnel are performing their duties every day.

GSDF serviceman stationed on Tsushima Island

Yutaka Niibo, Sergeant Major, Tsushima Guard Unit

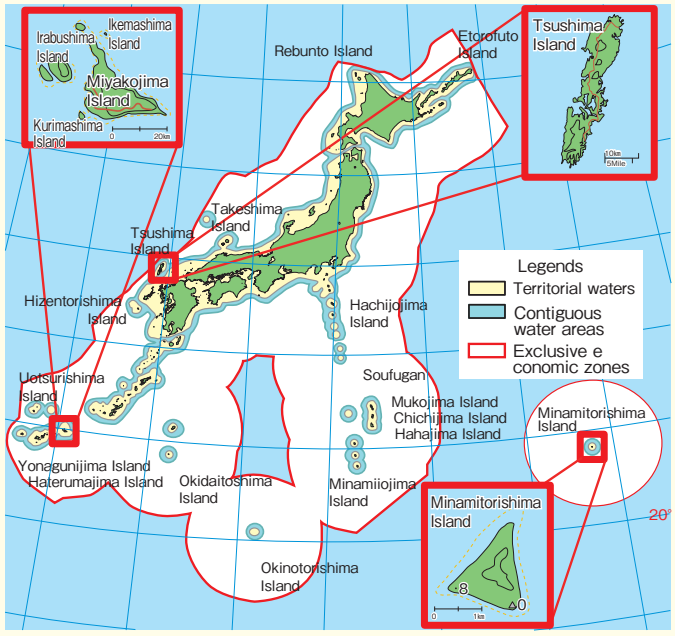
I am serving as the head of a medical corps of the Tsushima guard unit, which is deployed in a site close to the border with the Korean Peninsula. Tsushima has historically been at the forefront of national border defense, and each member of the unit has strong awareness of their position as a national border guard and is routinely conducting practical exercises. As a member of the "Yamaneko (wildcat) Unit" that guards a national border, I will devote myself to my mission in order to become a tougher SDF man and make our unit stronger.

ASDF serviceman stationed on Miyakojima Island

Kentaro Imazeki, Staff Sergeant, 53rd warning group, Southwest air warning unit

The Miyakojima Sub Base where I serve is a sub base located in the southernmost and westernmost region among the ASDF sub bases. The main mission of the radar site is warning and surveillance around this region, and I am responsible for the maintenance of radar equipment as a maintenance crew member.

The number of scrambles has increased in the Southwest region in recent years, and in order to provide support in this respect, I am performing my mission with a feeling of strain.



MSDF serviceman stationed on Minamitorishima Island

Hiroshi Osawa, Petty Officer 2nd Class, Minamitorishima air dispatch unit

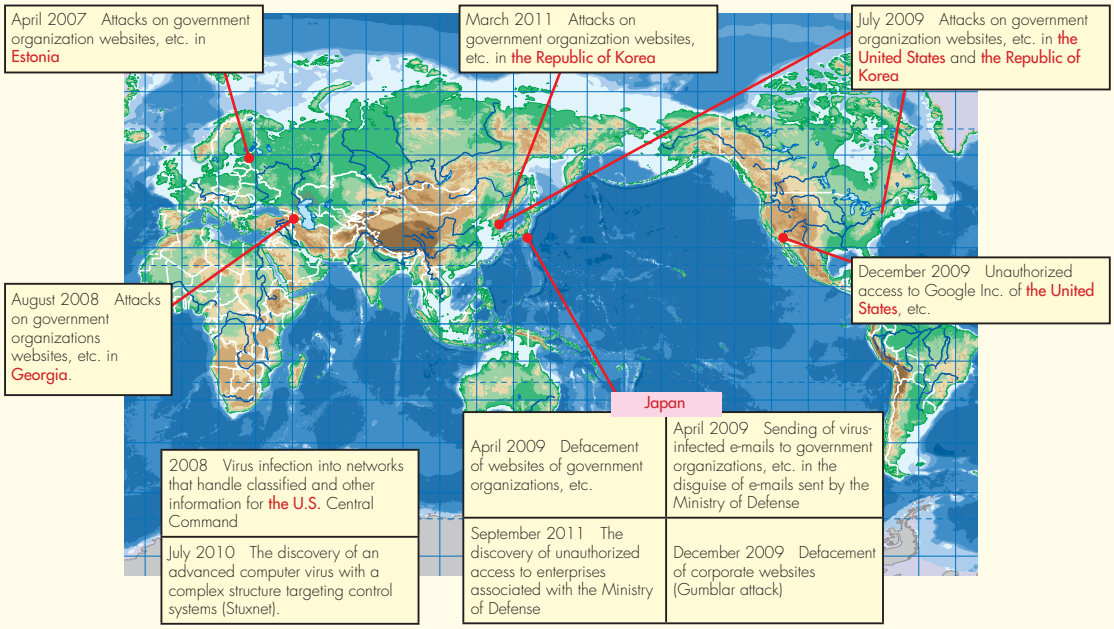
I am serving as a member of the Minamitorishima air unit. Although this island is very inconvenient due to the absence of shops, I am working with my colleagues to contribute to the protection of Japanese territories and exclusive economic zones. On this island, which is located in Japan's easternmost region, the temperature often rises above 25 degrees Celsius even during the winter, and doing jobs in a strong sunlight and heat is laborious. However, I will continue working hard.

Column VOICE Commentary Q&A

Threats in cyberspace

Question 1: What are the characteristics of cyber attacks and what is the trend of cyber attacks?

In cyberspace, a variety of entities are conducting various malicious activities, such as theft or falsification of information, and shutdown and malfunction of systems. Such cyber attacks are launched across national borders and it is difficult to identify the source of the attacks. There has been controversy over how to treat such attacks under international laws. Therefore, ensuring cyber security has emerged as a security issue for Japan and other countries in recent years (Part 1, Chapter 2, Section 2).

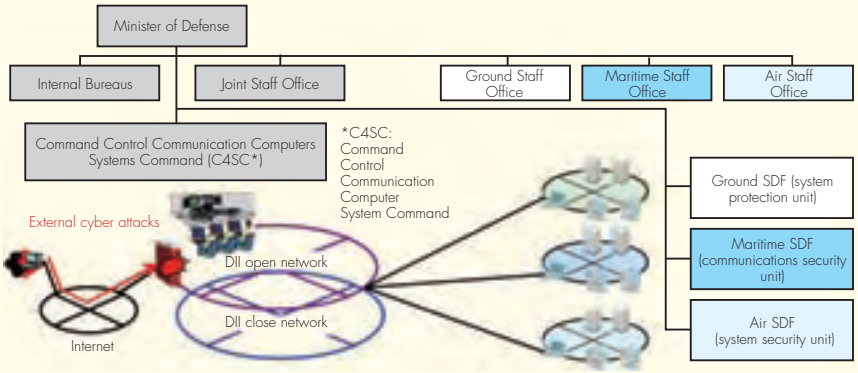


Question 2: How do the Ministry of Defense and SDF deal with cyber attacks?

Today, cyberspace constitutes essential infrastructure that supports the activities of the Ministry of Defense and SDF.

Therefore, the Ministry of Defense and SDF are implementing various measures to protect their own systems and networks on the assumption that they are routinely exposed to various risks (Part III-Chapter 1 Section 2).

Moreover, they will contribute to the improvement of Japan's overall security level in cooperation with relevant ministries and agencies, the private sector and allied countries (Part II, Chapter 3, Section 6).



of islands, including cruise missile response, and to secure air superiority[1], command of the sea, and safety of marine transportation routes in the sea and airspace surrounding Japan.

2 Initiatives of the Ministry of Defense and the SDF

Pursuant to the 2010 NDPG and the 2011 Mid-Term Defense Program, the Ministry of Defense and the SDF will establish a routine posture for intelligence gathering and patrol and a system necessary for the swift response to various contingencies. These efforts should include consideration of deployment of coastal surveillance units to islands in the southwestern region of Japan, where no SDF units are deployed, and reorganization of units in charge of initial response operations.

In order to ensure the capability for swift deployment of units and response, the Ministry of Defense and the SDF secure equipment such as transportation aircraft and surface-to-ship missiles, and carry out drills for deterrence of and response to attacks on islands. Also, in order to enhance the response capability on islands, various exercises are carried out in the southwestern region with the objective of improving joint operation capabilities of the GSDF, MSDF, and ASDF. The SDF is also actively involved in joint field training with U.S. forces aimed at acquisition of knowledge and skills as well as establishment of mutual alliance procedures.

Initiatives for improvement of air defense capacities through equipment with fighters and surface-to-air missiles, and initiatives for ensuring the safety of marine transportation through improvement of antisubmarine warfare capacities of submarines and maritime patrol aircraft, are extremely important from the perspective of securing response to attack on islands.

See Section 2-8

3 Response to Cyber Attacks

In recent years, cyber attacks on information and communications systems have become more sophisticated and complicated, and the risks threatening the stable utilization of cyberspace have been recognized as a new challenge in national security. In such a situation, the Ministry of Defense and the SDF must continue to improve our functions to safeguard the information systems and communications networks of the SDF.

1 Response of the SDF

The 2010 NDPG stipulate that the SDF will respond to cyber attacks by jointly operating functions necessary for defending its own information systems, and that by accumulating advanced expertise and skills needed to deal with cyber attacks, the SDF will contribute to the government-wide response to cyber attacks.

In order to strengthen the SDF's capability to respond to cyber attacks, it is important to strengthen the SDF structure for joint response to such attacks against the SDF, and to improve research and exercise initiatives regarding response to cyber attacks.

2 Initiatives of the Ministry of Defense and the SDF

In March 2008, the Ministry of Defense and the SDF inaugurated the SDF C4 (Command, Control, Communication & Computers) Systems Command, which is in charge of maintenance and operation of the SDF's defense information infrastructure system and the Central Command System[1]. Moreover, while the SDF continually monitor their communications networks, in dealing with cyber attacks, which are becoming increasingly diverse and complex by the day, it is necessary not only to introduce intrusion prevention systems in order to increase the safety of information and communications systems, and develop defense systems such as the security and analysis device for cyber defense, but also to formulate comprehensive measures, including those focused on developing the human and technological infrastructure, so the Ministry of Defense and SDF are engaged in such initiatives as enacting regulations[2] stipulating postures and procedures for responding to cyber attacks, as well as conducting research into cutting-edge technology.

Moreover, to strengthen the ability to deal with cyber attacks, in FY2012, the Ministry of Defense and the SDF plan to enhance the capability of the security and analysis device for cyber defense in terms of collecting latest viruses

2-1 The degree of dominance in the air battle of one force over another that permits the conduct of operations by the former without prohibitive inference by opposing air forces.

3-1 Refer to Note 3 in Section 1-4. The Joint Operational Structure of the Self-Defense Forces

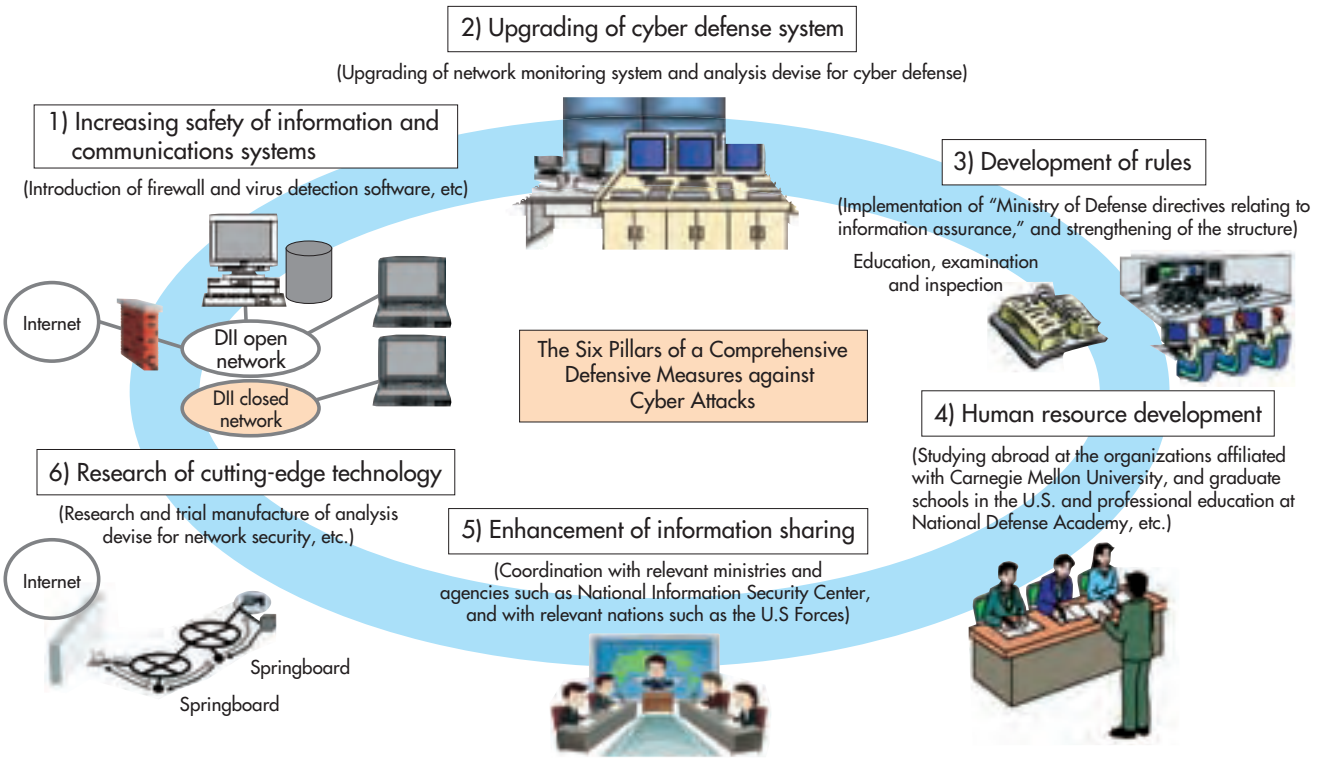
2 There are directives relating to information assurance of the Ministry of Defense (Ministry of Defense Directive No. 160, 2007)

information from the internet, as well as conducting practical trainings. The Ministry of Defense and the SDF also continue to implement initiatives for development of human resources with sophisticated knowledge, including efforts for enhancement of research regarding response to cyber attacks, establishment and improvement of a system for education and research in the field of network security at the National Defense Academy, and dispatch of officials to study at graduates schools in Japan and abroad.
(See Fig. III-1-2-4)

At the same time, it is difficult for the Ministry of Defense and SDF alone to achieve the stable use of cyberspace. Thus, in addition to collaborating with relevant ministries and agencies, such as NISC (National Information Security Center)[3], information will be exchanged on information security and issues concerning cyberspace, through such initiatives as the Japan-U.S. Strategic Policy Dialogue on Cybersecurity Issues within the National Security Context, which was referred to in the Joint Statement of the "2+2" meeting held in June 2011 and held for the first time in September that year. The Ministry of Defense and SDF are also promoting cooperation with the international community, including the U.S., by such means as holding joint exercises on the supposition of cyber attacks.

In other words, comprehensive measures are needed to respond to cyber attacks, which are becoming increasingly diversified. In order to consider and implement measures to this end, the Cyber Attack Countermeasures Committee, chaired by the Parliamentary Vice-Minister of Defense, was established in May 2012 and is conducting deliberations regarding the formulation of a comprehensive policy for the stable use of cyberspace, as well as the establishment of a special unit for cyber defense that will play a core role in SDF responses to cyber attacks.

Fig. III−1−2−4 Cyber Attack Countermeasures at Ministry of Defense & SDF



3 Refer to Part II, Chapter 3, Section 6-2 Initiatives Concerning the Stable Use of Cyberspace

4 Response to Attacks by Guerillas and Special Operations Forces

Since Japan is highly urbanized, small-scale infiltrations and attacks can pose a serious threat to peace and security. Such cases may take various forms including illegal actions by armed agents[1], and destructive actions by guerillas and special operations forces, which constitute a form of armed attack on the territory of Japan.

See References 22, 23

1 Responses to Attacks by Guerillas and Special Operations Forces

(1) Basic Concept

Possible forms of armed attack on Japan can include 1) destruction of facilities and attacks on people by irregular forces such as guerillas and 2) subversive activities, assassination of important figures, and raids on operation centers by regular forces such as special operations forces.

In the event of armed attack on Japan by guerilla or special forces, Japan will respond with defensive operations.

(2) Operations to Respond to Attacks by Guerillas and Special Operations Forces

In operations to respond to attacks by guerillas or special operations forces, an intelligence gathering posture is established to detect the attacks at the earliest possible time and to respond in a swift and flexible manner using rapid-respond units while placing priority on mobility. Particular importance is given to patrol and surveillance to prevent invasion in coastal areas, safeguarding of key facilities, and search and defeat of invading units. It is important at this time to quickly gain control of the situation to minimize damage from assault.

a. Search and Detection of Guerillas and Special Operations Forces

Efforts will be made to detect various types of vessels and submarines that transport guerillas or special operations forces at an early stage, and interdict them at sea through patrols[2] in surrounding waters by escort ships or aircraft. When the possibility of infiltration into Japanese territory by guerillas and special operations forces is suspected, GSDF patrol units will engage in warning and surveillance activities in coastal areas.

In the event of an infiltration, patrol and air units will search and detect the guerillas or special operations forces.

Furthermore, as required, a guarding posture will be established for the prompt deployment of guarding units to secure key facilities.

b. Capture and Defeat of Guerillas and Special Operations Forces

In the event that guerillas or special operations forces are detected, combat forces will be promptly deployed in the area to besiege them, upon which they will be captured or destroyed. (See Fig. III-1-2-5)

2 Response to Armed Agents

(1) Basic Concept

While the police assume primary responsibility for responding to illegal activities of armed agents, the SDF will respond in accordance with situational developments.
(See Fig. III-1-2-6)

(2) Measures for Strengthening Cooperation with the Police

a. Establishing the Framework for Strengthening Cooperation

For the SDF to deal with armed agents it is important to cooperate with the police agency. Accordingly, in 2000, the Basic Agreement concluded in 1954 between the JDA and the National Public Safety Commission, to provide cooperation procedures in case of public security operations to suppress mass violence was revised, enabling its application to illegal activities by armed agents[3]. In addition, local agreements were concluded in 2002 regarding public security operations between GSDF divisions/brigades and prefectural police forces.

Furthermore, guidelines were jointly formulated with the National Police Agency in 2004 for dealing jointly with public security dispatches in the event of armed agent concerns.

b. Joint Exercises with the Police

By July 2005, the GSDF divisions/brigades and each prefectural police force, which are parties to the local agreements, had conducted joint simulation exercises to strengthen mutual cooperation at the local level in preparation for dealing with armed agents. Based on the results of these joint simula-

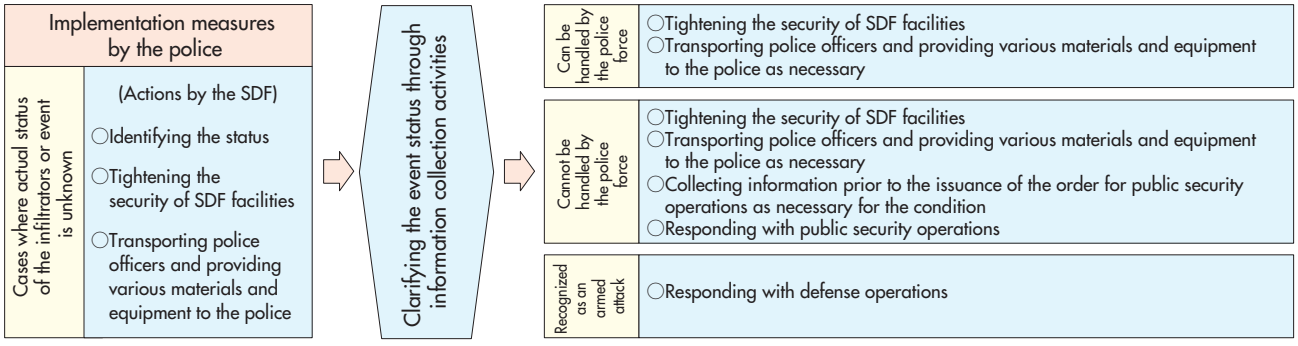
1 Refers to persons engaging in illegal acts such as subversive activities in Japan while possessing weapons with significant killing power, those cooperating with such persons, etc.

2 To systematically patrol a specific area for purposes such as prevention of surprise attack and information collection.

3 The Agreement on the Maintenance of Public Order in the Event of Public Security Operations which was concluded between the former Defense Agency and the National Public Safety Commission.

Fig. Ⅲ−1−2−5 Example of Operations for Coping with Guerillas and Special Forces

Fig. Ⅲ−1−2−6 Basic Concept for Responding to Armed Agents



tion exercises, joint field exercises were carried out through FY2009 between all divisions and brigades and the police of all prefectures starting with the field exercises between the GSDF Northern Army and the Hokkaido prefectural police. These joint exercises were carried out on a continuous basis to confirm cooperation procedures in cases of security operations.

3 Response to Nuclear, Biological, and Chemical Weapons

In recent years, there has been strong recognition of the danger of nuclear, biological, and chemical (NBC) weapons proliferation and the means for transporting such weapons, as well as related equipment and materials, to terrorists and rogue

states. In the event that such weapons of mass destruction are used, it is likely there will be indiscriminate mass casualties and contamination of an extensive area. The sarin gas attack[4] on the Tokyo subway in 1995 and the incidents of mail in the United States containing anthrax[5] in 2001 are evidence of the fact that these weapons have already been used.

(1) Basic Concept

In the event of the use of NBC weapons in Japan in a way that corresponds to an armed attack, the SDF will conduct defense operations to abate the armed attack and rescue victims. Furthermore, in the event of the use of NBC weapons in a way that does not correspond to an armed attack but against which the general police alone cannot maintain public security, the SDF will conduct public security operations to suppress the armed attack and assist victims in cooperation with related agencies. Furthermore, when the incident does not fall under the category of defense operations or public security operations, the chemical protection units of the GSDF and medical units of the ASDF, GSDF, and MSDF will support relative organizations about disaster relief dispatches and civilian protection dispatches to conduct intelligence gathering concerning the extent of the damage; decontamination activities; transport of the sick and injured; and medical activities.

(2) Initiatives of the Ministry of Defense and the SDF in Response to NBC Weapons

The Ministry of Defense and the SDF have improved the capability for responding to NBC weapon attacks. Specifically, the Central NBC Weapon Defense Unit was formed under the Central Readiness Force, and there has been an increase of chemical protection unit personnel, improvement of NBC reconnaissance vehicles, chemical surveillance devices, decontamination vehicles, personnel protection equipment, portable automatic biological sensors, chemical protection clothing, and research and development for decontamination kits is ongoing. Also, the GSDF has designated personnel to take initial action in the event of special-type disasters in order to allow operations to begin within approximately one hour. The MSDF and ASDF have also acquired protective equipment and materials to be used on vessels and at bases. The SDF is engaged in efforts to improve the capability for responding to NBC weapon attacks, including through establishing partnerships with relevant external institutions, such as local authorities, the police, and fire departments. Such efforts include the first ever joint training exercise for civil protection that envisioned a terrorist bombing involving radioactive materials. The exercise was carried out in January 2011.

See Section 1-3

GSDF troops carrying out decontamination during an NBC protection drill

5 Response to Ballistic Missile Attacks

While various efforts have been made by the international community for the non-proliferation of ballistic missiles and weapons of mass destruction, the proliferation of these weapons still continues.

Among the countries surrounding Japan, China and Russia have deployed a considerable number of ballistic missiles which can mount nuclear weapons. In 2006, North Korea launched seven ballistic missiles and carried out a launch which was purported to be "an experimental communications satellite" in April, 2009. In July the same year, North Korea again launched seven ballistic missiles and in April 2012, North Korea launched a missile so-called a "satellite". These events have reconfirmed that the threat from ballistic missiles is a reality.

See Part I, Chapter 1, Section 2; References 1, 2

Japan began developing the Ballistic Missile Defense (BMD) system in FY2004 in order to improve readiness in response to ballistic missile attacks. Necessary amendments were subsequently made to the SDF Law in 2005. In the same year, the Security Council and Cabinet decided to begin Japan–U.S. cooperative development of advanced ballistic missile

4 An incident in which members of Aum Shinrikyo spread extremely poisonous sarin gas in subway trains crowded with commuters, claiming the lives of 12 people (the number refers to the number of deaths indicated in the judgment rendered to Chizuo Matsumoto (commonly known as Shoko Asahara, a guru of Aum Shinrikyo) . The SDF conducted decontamination operations of the trains and stations as well as supported police forensics.

5 Since September 2001, postal mail containing anthrax was delivered to individuals including members of the U.S. Senate and those related to the mass media.

interceptor.

In addition to the assignment of ballistic missile defense capability to the 4 Aegis destroyers[1], the success in the flight tests of the Patriot Advanced Capability-3 (PAC-3)[2] shows that Japan is steadily building up its own multi-tiered defense system against ballistic missile attacks.
(See Fig. III-1-2-7)

1 Japan's Ballistic Missile Defense

(1) The Outline of BMD System Equipment

a. Basic Concept

Japan's BMD is an effective multi-tier defense system with the upper tier interception by Aegis destroyers and the lower tier by Patriot PAC-3, both interconnected and coordinated by Japan Aerospace Defense Ground Environment (JADGE). To establish this multi-tier defense structure, the MOD and SDF have been improving the capability of existing Aegis destroyers and Patriot systems and further promoting the BMD system development.

See References 26, 27
(See Fig. III-1-2-8)

b. Development Status of the BMD System

By the end of FY2010, the MSDF equipped its four Aegis destroyers[3] with Standard Missile-3 (SM-3) missiles, and the ASDF deployed a total of 16[4] FUs[5] of Patriot PAC-3, achieving

Fig. Ⅲ−1−2−7 The History of Efforts for BMD Development in Japan

1995	Commenced a comprehensive study on the posture of the air defense system of Japan and a Japan–U.S. joint study on ballistic missile defense
1998	North Korea launched a ballistic missile over Japanese territory
	The Security Council and the Cabinet meeting approved the Japan–U.S. joint cooperative technical research on ballistic missile defense (BMD) as part of a sea-based upper-tier system
1999	Started the joint Japan–U.S. technical research on four major components for advanced interceptor missiles
2000	The Security Council and the Cabinet meeting approved the Mid-Term Defense Program (FY2001–FY2005) with a decision to continue the Japan–U.S. joint cooperative technical research on a sea-based upper-tier system and to take necessary measures after the review of its technical feasibility
2002	Decision by the United States on the initial deployment of BMD
2003	The Security Council and the Cabinet meeting approved the introduction of BMD system and other measures, and the deployment of BMD in Japan started
2004	The Security Council and the Cabinet meeting approved the National Defense Program Guidelines and the Mid-Term Defense Build-up Program, with a decision to take necessary measures after examining possible transition of the joint technical research to a development stage, together with continued efforts of build-up to establish a necessary defense posture including development of the BMD system
2005	The Security Council and the Cabinet meeting approved a Japan–U.S. Cooperative Development on advanced interceptor missiles for BMD
2006	North Korea launched seven ballistic missiles toward the Sea of Japan
2007	• The deployment of Patriot PAC-3 units started • SM-3 test-launch by Aegis destroyer *Kongo*
2008	• Test-launch of Patriot PAC-3 • SM-3 test-launch by Aegis destroyer *Chokai*
2009	• 2009 North Korea launched one ballistic missile toward the Pacific Ocean in April and seven toward the Sea of Japan in July • Orders for ballistic missile destruction measures were issued for the first time • Test-launch of Patriot PAC-3 • SM-3 test-launch by Aegis destroyer *Myoko*
2010	• Patriot PAC-3 units deployment completed • SM-3 Test-launch by Aegis destroyer *Kirishima* (upgrading BMD of four Aegis-equipped vessels completed)
2011	• Completing deployment of FPS-5 (4 radars total)
2012	• North Korea launched a missile which it calls a "Satellite" • An order was issued to destroy the ballistic missile

1 Vessels equipped with Aegis air defense systems, which automatically process a series of activities including target search, detection, identification/classification, and attack using high performance computers.

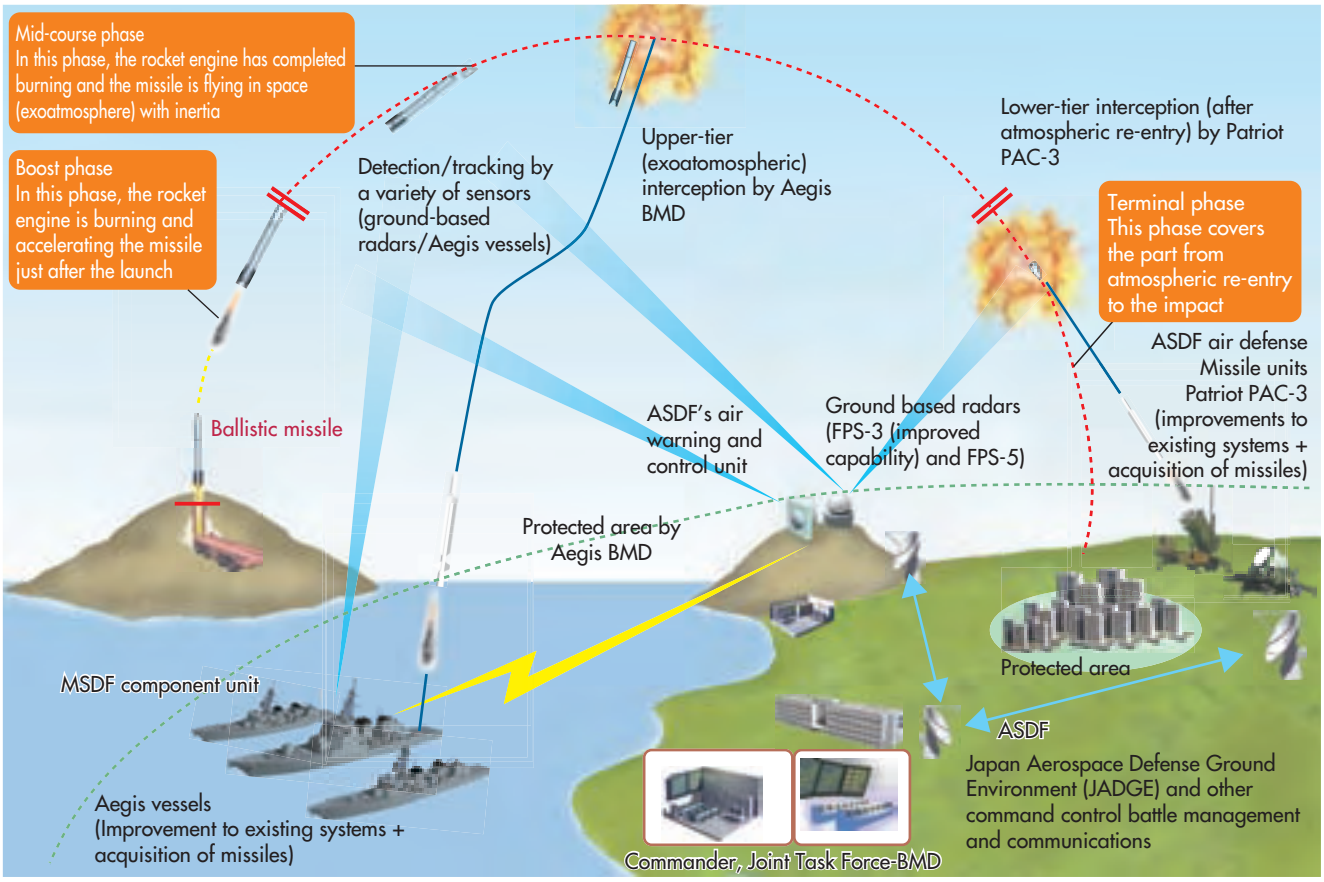
2 The Patriot PAC-3 system is one of the air defense systems for countering airborne threats. Unlike the conventional type of anti-aircraft PAC-2 missiles, which mainly target the interception of aircraft, the PAC-3 missiles are designed primarily to intercept ballistic missiles.

3 *Kongo*, *Chokai*, *Myoko* and *Kirishima*

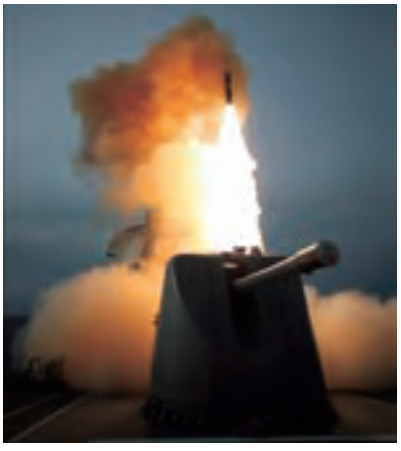
4 4 FUs of the 1st Air Defense Missile Group (Narashino, Takeyama, Kasumigaura, and Iruma), 4 FUs of the 2nd Air Defense Missile Group (Ashiya (2), Tsuiki, and Kouradai), 4 FUs of the 4th Air Defense Missile Group (Aibano, Gifu (2), and Hakusan), and 4 FUs of the Air Defense Training Group and 2nd Technical School (Hamamatsu)

5 Fire Unit (the minimum unit of surface-to-air fire corps).

Fig. III-1-2-8 Concept of BMD Deployment and Operation (Image)



the deployment targets set in the annex table of the 2004 NDPG. The MOD and SDF are to continue the development of the BMD system, based on the latest NDPG and Mid-Term Defense Program. Immediate objective is to establish a system consisted of six BMD-capable Aegis destroyers (two vessels added), 17 Patriot PAC-3 FUs (six Air Defense Missile Groups, Air Missile Training Group, and 2nd Technical School) (one additional FU), four FPS-5[6] radars (already deployed), and seven upgraded FPS-3 radars (already deployed) with these assets interconnected through various types of command, control, battle management and communications systems, such as JADGE.



Aegis destroyer launching SM-3

(2) Future Capability Improvement

The proliferation of ballistic missile technology continues and the possibility remains that ballistic missiles will be furnished with countermeasures to avoid interception in the future. Furthermore, expansion of the defense coverage and improvement of interception probability are also required in response to conventional ballistic missiles. Thus, it is essential to improve the kinetic performance of interceptor missiles and undertake initiatives to advance the efficiency and reliability of the BMD system.

6 A newly developed radar system that enables detection and tracking of ballistic missiles whose development started in FY1999 (former name: FPS-XX). The radar can respond to conventional threats such as aircraft as well as ballistic missiles.

FPS-5 warning and control radar deployed at Yozadake Sub Base (Okinawa) in the end of FY2011

From this perspective, Japan–U.S. cooperative development project concerning an advanced interceptor missile commenced in 2006 based on results obtained from Japan–U.S. cooperative research, which had started in 1999. Thus, efforts to improve future capabilities are under way.
(See Figs. III-1-2-9, 10)

2 Improvement in Legislation and Operations

(1) Legal Measures regarding Responses to Ballistic Missiles

In case ballistic missiles or other objects[7] are launched toward Japan and if the situation is recognized as an armed attack, defense operation order for armed attack situations will be issued to respond.

On the other hand, when ballistic missiles are launched towards Japan and if the situation is not acknowledged as an armed attack, the following measures will be taken with enough consideration to 1) carrying out a prompt and appropriate response and 2) ensuring civilian control;

a. When the Minister of Defense determines that there is a possibility that ballistic missiles or other objects will fly toward Japan, the Minister of Defense may order SDF units to take measures to destroy the ballistic missiles upon approval of the Prime Minister[8].
b. In addition to the above case, there may be cases that almost no information is available concerning missile launch, or that suddenly the situation changes due to accidents or failure in launch, allowing no time for the Minister of Defense to obtain the approval of the Prime Minister. In

Fig. III−1−2−9
Methods to Avoid Ballistic Missile Interception that are Expected to Emerge in the Future

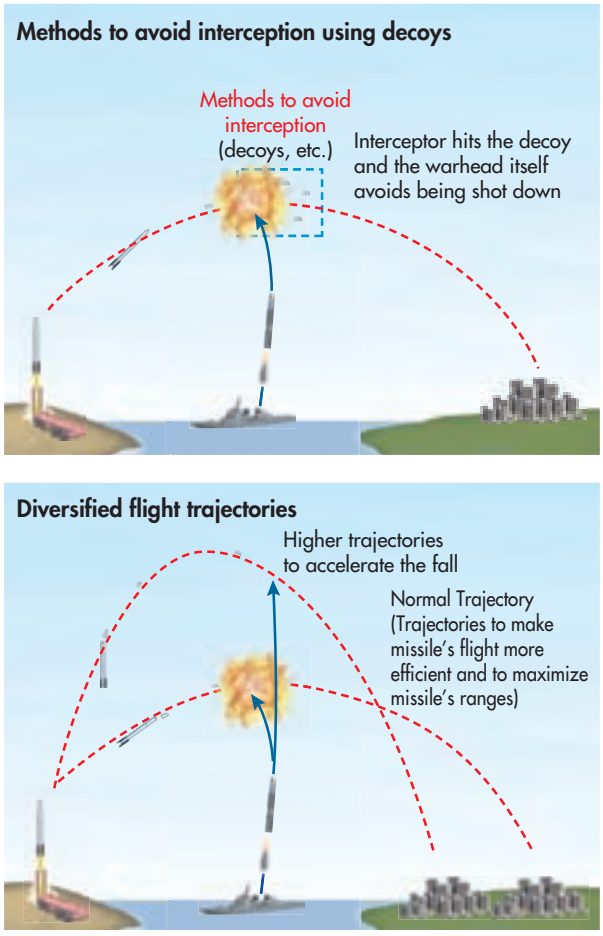
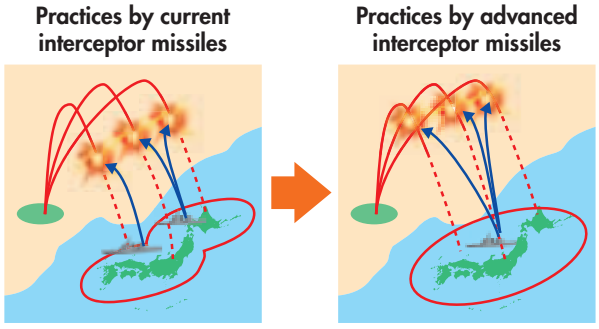


Fig. III−1−2−10
Expanding Protected Areas through Future Improvement in Capabilities of BMD Missiles (Images)



7 Objects other than aircraft such as ballistic missiles which could cause grave damage to human life and property when they fall to the ground.

8 A specific example of SDF activity is deployment of PAC-3 units by the ASDF and Aegis destroyers by the MSDF, upon receipt of an appropriate order from the Minister of Defense in preparation for incoming ballistic missiles and other objects. In case that missiles actually flies toward Japan, based on the aforementioned order, SDF units will destroy them.

case of such contingencies, the Minister of Defense may prepare emergency response procedures in advance that are to be preapproved by the Prime Minister. Subsequently, in accordance with these emergency response procedures, the Minister of Defense may issue an order with a specified period of validity in advance to SDF units to take the necessary measures to destroy ballistic missiles and other objects when they actually fly toward Japan.
(See Fig. III-1-2-11)

See References 22, 23, 28

(2) Concept of Ensuring Civilian Control of the Military

Response against ballistic missiles requires the government to assess the possibility of missiles flying toward Japan by comprehensively analyzing and evaluating the specific situation and international circumstances. In addition to the SDF destroying the missile, interagency actions are required, for example, measures for civil protection such as alert and evacuation, diplomatic activities, information gathering by related agencies, and enhancement of readiness for emergencies.

In view of the importance of the matter and the necessity of action by the Japanese government as a whole, Prime Minister's approval (Cabinet decision) and orders by the Minister of Defense are required so that the Cabinet and Minister of Defense can sufficiently fulfill their responsibilities. Furthermore, the participation of the Diet is also defined with a provision in the law on reporting to the Diet.

(3) Operational Efforts

a. Responses to Ballistic Missiles through Joint Operations

Responding to ballistic missiles fly toward Japan, if BMD Joint Task Force is formed, the Commander of the Air Defense Command is to serve as the Commander of the task force, and various postures for effective defense are to be taken under a unified command through JADGE. Furthermore, the GSDF will play a leading role in dealing with damage caused by the impact of ballistic missiles.

b. Japan–U.S. Cooperation in Response to Ballistic Missile Attacks

Further cooperation with U.S. forces in Japan as well as with the U.S. government is required for efficient and effective operation of the BMD system. Thus, related measures were agreed upon at the Japan–U.S. Security Consultative Committee (2+2) meetings in 2005, 2006, and 2007.

Also, at the Japan–U.S. defense ministers meeting in November 2007, with progress in development of the BMD system, both Japan and the United States agreed to advance cooperation with a focus on operational aspects.

In addition, maintenance, development and validation of Japan-U.S. bilateral response capability have been conducted actively through training and other activities. In February 2012, following the previous year, a special BMD exercise was held between the MSDF and the U.S. Navy, connecting their ships via a network and conducting a simulation of response to ballistic missiles, to improve tactical capabilities and strengthen bilateral cooperation between their units.

See Chapter 2, Section 2

3 Missile Defense of the United States and Japan–U.S. BMD Technical Cooperation

(1) Missile Defense of the United States

The United States aims to develop a multi-tier missile defense system consisted of mutually complementary interception systems suited for each of 1) the boost phase, 2) the mid-course phase, and 3) the terminal phase of the ballistic missile flight path, and these systems are to be deployed as they become available.
(See Fig. III-1-2-12)

Fig. III−1−2−11 Flow of Response to Ballistic Missiles

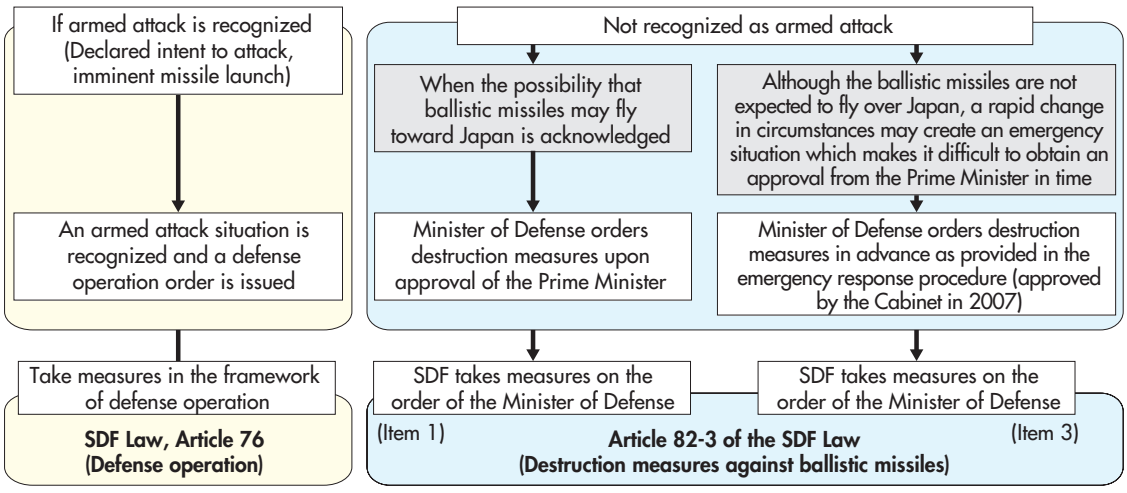
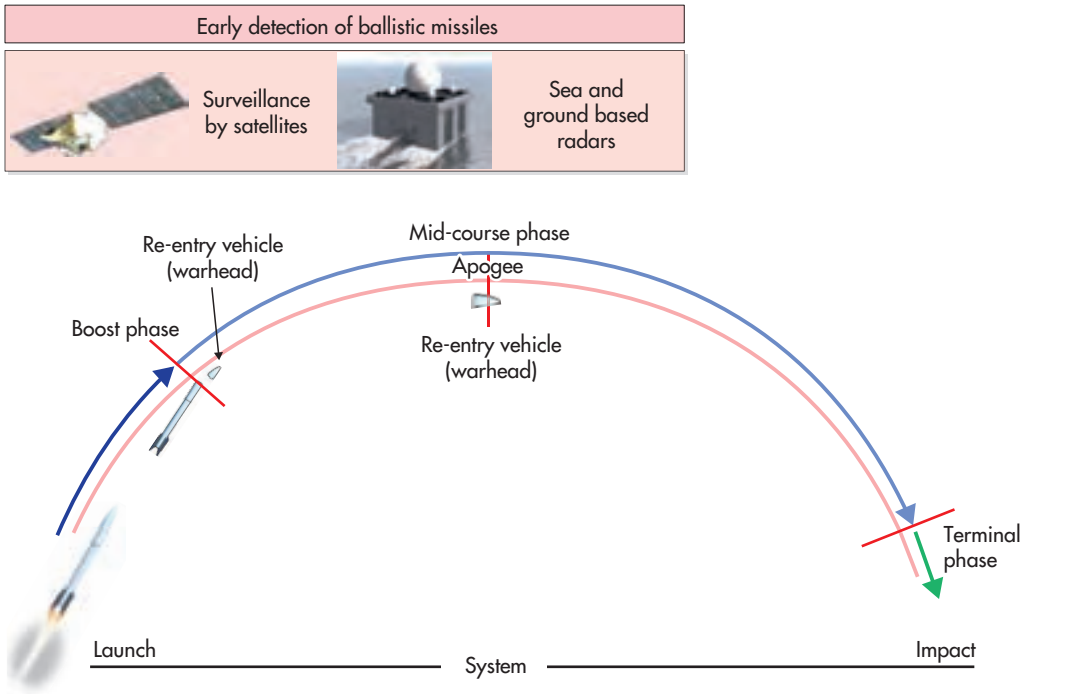


Fig. Ⅲ−1−2−12 Example of U.S. Multi-layered Defense Concept against Ballistic Missiles



GMD: Ground-based Midcourse Defense System: An interception system for long range ballistic missiles at the mid-course phase from a fixed silo on the ground
SMD: Sea-based Midcourse Defense System: An interception system for intermediate range ballistic missiles from a sea-based Aegis-equipped destroyer
THAAD: Terminal High Altitude Area Defense System: An interception system for short- to medium-range ballistic missiles from a movable launcher at the terminal phase

Japan and the United States have developed close coordination concerning ballistic missile defense, and a part of the missile defense system possessed by the United States has been deployed in our country in a step-by-step manner.

Specifically, in June 2006, the USFJ deployed a mobile radar for BMD at the ASDF Shariki sub-base (Aomori Prefecture)[9]. Also, BMD-capable Aegis destroyers have been forward deployed in Japan and surrounding areas since December 2006. Furthermore, in October 2006, Patriot PAC-3 were deployed at Kadena Air Base in Okinawa Prefecture, and in October 2007, Joint Tactical Ground Station (JTAGS)[10] was deployed at Misawa Air Force Base in Aomori Prefecture.

The deployment of a part of the U.S. missile defense system in Japan will serve to secure the safety of the people of Japan.

(2) Japan–U.S. Cooperative Development of Advanced Ballistic Missile Interceptor and Other Initiatives

In 1998, the government decided to commence Japan–U.S. joint

9 Later on, the radar moved to the neighboring U.S. Forces Shariki Communication Site.

10 A ballistic missile information processing system.

cooperative research project on a sea-based upper-tier system in FY1999.

This purpose of the Japan-U.S. cooperative research project was to improve future interceptor missile's capability, and conducted design, prototype production and necessary testing for main four components[11].

In December 2005, the Security Council and the Cabinet made a decision to use results of the project as a technical foundation of development of an advanced ballistic missile interceptor, because the results showed good prospects for initial technical issues. Japan-U.S. cooperative development has been ongoing since June 2006, and it will continue as promoted by the 2010 NDPG and the 2011 Mid-Term Defense Program.

Moreover, in September 2011, in order to certainly achieve the development targets such as defended area expansion and response capability against future threats (see Fig. III-1-2-9), the end of the development program, which was originally scheduled for FY2014, was extended by about two years.

In FY2012, as well as conducting system simulation tests, Japan and the U.S. will carry out preparatory work for launch tests.

(See Fig. III-1-2-13)

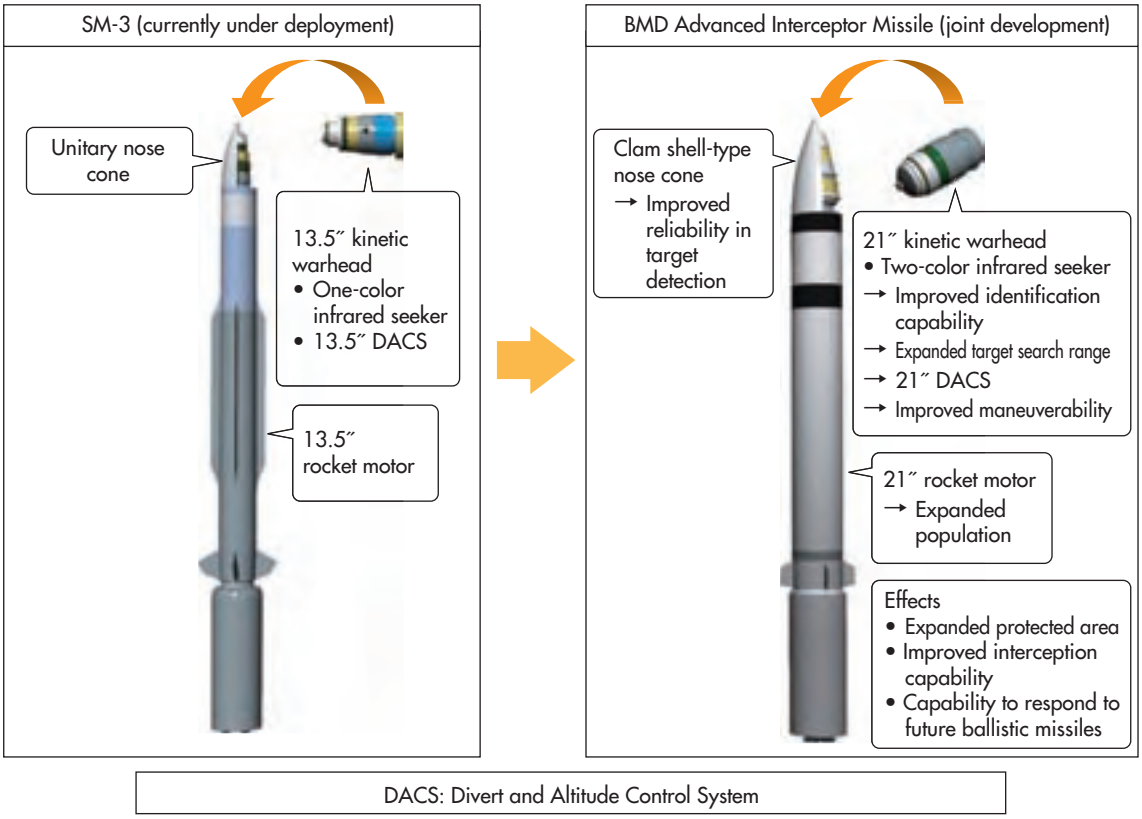
See Reference 29

(3) Relationship to the Three Principles on Arms Exports

With regard to the Japan–U.S. cooperative development, which is aimed for improved future BMD capability, it is necessary to export BMD related arms from Japan to the United States as part of development. In accordance with the Chief Cabinet Secretary's statement issued in December 2004, it was determined that the Three Principles on Arms Exports would not apply to the BMD system and related matters under the condition that strict controls are maintained. When the transition to cooperative development was decided in December 2005, a framework for transfer of arms was set to be coordinated with the U.S. in regard with necessary arms export.

In June 2006, notes concerning transfer of arms and military technology to the United States were exchanged, thereby establishing a framework to transfer arms and military

Fig. III-1-2-13 Outline of the Japan–U.S. Joint Development of Advanced Interceptor Missiles for BMD



11 The four components are the nose cone, second-stage rocket motor, kinetic warhead, and infrared seeker.

technology under tight controls, banning their transfer to third countries without Japan's prior consent.

At the Japan-U.S. Defense Ministers meeting in January 2011, the two countries concurred that they began to consider the transition to the production and deployment phase of the advanced ballistic missile interceptor (SM-3 Block IIA), as well as third party transfer of the missile.

Based on these circumstances, the third party transfer was discussed, and it was decided that transfer of the SM-3 Block IIA could be approved in advance in accordance with the Exchange of Notes concerning transfer of arms and military technologies to the U.S., in case where the transfer supports the national security of Japan and/or contributes to international peace and stability, and when the third party has sufficient policies to prevent the future transfer of the SM-3 Block IIA, because it will firmly maintain Japan's basic philosophy as a peaceful country to avoid fostering international disputes. This decision was formally announced in the Joint Statement of the U.S.-Japan Security Consultative Committee (2+2) on June 21, 2011.

See References 20, 29

4 Response to North Korea's Missile Launch

On March 12, 2009, the International Maritime Organization (IMO) informed member countries that it had received warning in advance from North Korea of an intended test launch of an "experimental communication satellite."

As the actions of North Korea violated U.N. Security Council Resolutions 1695 and 1718, the government requested that North Korea stop the launch, and confirmed the response policy toward North Korean missile launches at the Security Council on March 27.

Further, based on Article 82 Section 2 of the Self-Defense Forces Law (currently Article 82 Section 3), the Minister of Defense issued the "Order for destruction measures against ballistic missiles." The SDF formed the BMD Joint Task Force and deployed two Aegis Destroyers (*Kongo* and *Chokai*) to the central Sea of Japan as well as Patriot PAC-3 units to SDF bases in the Tohoku region (Iwate and Akita prefectures) and the Tokyo metropolitan area (Saitama, Chiba and Tokyo) to protect Japanese territory from falling missiles.

At 11:30 AM on April 5 of the same year, one missile was launched from North Korea toward the east and was calculated to have passed over the Tohoku region to the Pacific Ocean at approximately 11:37.

The MOD and the SDF swiftly transmitted information to the Prime Minister's Office and other agencies, collected from Shared Early Warning[12] (SEW) and the various SDF radar units[13]. Further, aerial reconnaissance was carried out to confirm whether any harm was caused in the Tohoku region.

On April 6, the Minister of Defense issued an order to terminate the destruction measures against ballistic missiles and recalled the units. On May 15, a comprehensive and expertise analysis of the missile launched by North Korea was made public[14].

On March 19, 2012, a formal notification was sent from the IMO that it had received warning in advance from North Korea concerning a launch of an "earth observation satellite". According to this notification, the North Korean authorities had specified the launch period between 07:00 and 12:00 (Japan time) every day from April 12 to 16, as well as designated 2-stage falling areas where the debris would fall as the offshore area west of Jeolla Province, in the south of South Korea, and the offshore area east of the island of Luzon in the Philippines.

Based on these facts, on March 27, the Minister of Defense issued an order for preparations for destruction measures against ballistic missiles and preparations commenced. Moreover, on March 30, the Japanese government confirmed response policy at the Security Council against the launch of a missile, which was announced as a satellite. Also on the same day, the Minister of Defense issued an order for the implementation of destruction measures against ballistic missiles based on Article 82-3, Paragraph 3 of the Self-Defense Forces Law; the SDF deployed Aegis destroyers equipped with SM-3 missile in the Sea of Japan and the East China Sea, and Patriot PAC-3 units on the islands of Okinawa Prefecture and within the Tokyo metropolitan area. Also, MOD and SDF responded by dispatching the requisite units to the southwestern islands to conduct quick response in the event of any damage due to falling debris.

Around 07:40 on April 13, the MOD and the SDF confirmed receiving information from SEW concerning a launch of a

12 This is information conveyed by the U.S. to the SDF after the U.S. Forces analyzes data relating to ballistic missiles launched in the direction of Japan; the analysis takes place within a short period immediately after the launch and the information provided to the SDF includes area where the launch took place, time of the launch, area where debris is expected to fall and anticipated time when it is likely to fall. Under the security arrangements between Japan and the U.S., the SDF has exchanged various kind of information with the U.S. Forces, and the SEW is one of such information (since in April 1996). It cannot be denied that there are limits to the accuracy of this kind of information due to its nature, but it is valuable enough as an "initial report" of any ballistic missile launches in the direction of Japan.

13 On the day before the actual launch, false information related to the launch was distributed due to mishandling of information by the Ministry of Defense and the SDF. At the time of the actual launch, information was properly collected and transmitted checking information with SEW by several staff including the Chief of Joint Staff.
See <http://www.mod.go.jp/j/approach/defense/bmd/20090515-1.html>

14 For further information about the North Korean missile launch, see <http://www.mod.go.jp/j/approach/defense/bmd/20090515.html>

flying object from the west coast of North Korea. Subsequently, it was determined that this launch was of the missile called by North Korea to be a "satellite". The missile flew for over a minute and then broke up into several pieces which fell into the Yellow Sea, so it is believed that the launch failed.

The same evening, the Minister of Defense issued an order to terminate the destruction measures against ballistic missiles and the units were quickly recalled[15].

Transport vessel transporting a Patriot PAC-3 to be deployed on Ishigaki Island

Aegis destroyer leaving the port in response to the operation order for the implementation of destruction measures

GSDF unit deployed on Ishigaki Island to provide a rapid response in the event of any damage from falling debris

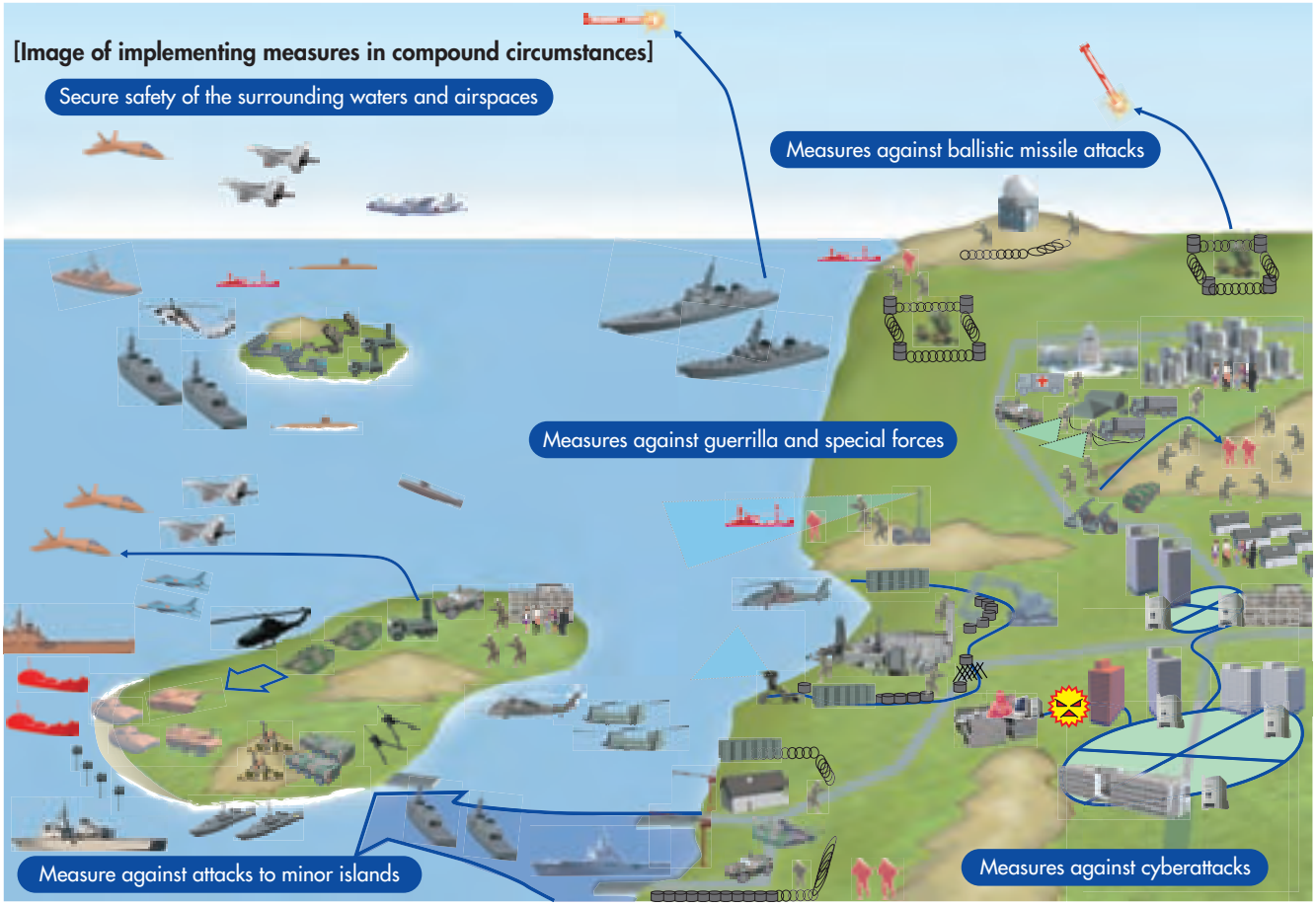
Patriot PAC-3 deployed on Ishigaki Island in response to the operation order for the implementation of destruction measures

6 Responses to Complex Situations

There is a possibility that the various situations detailed above might occur consecutively or simultaneously, in which case a more complex response would be required. In order to implement an effective response to such complex situations, deliberations are being conducted regarding the relevant matters, such as strengthening the functions of the Joint Staff, in light of the lessons from the Great East Japan Earthquake, etc.
(See Fig. III-1-2-14)

15 Concerning the transition of information from the Ministry of Defense to the official residence of the prime minister and the information transmitted from the official residence of the prime minister to the citizens, an investigation was conducted by "the governmental risk management team regarding the launch of missiles by North Korea" (see <http://www.kantei.go.jp/jp/topics/2012/pdf/0426houkokusho.pdf>). For details concerning the investigation of the response by the Ministry of Defense, see <http://www.mod.go.jp/j/press/news/2012/06/15b.html>

Fig. Ⅲ−1−2−14 Image of Implementing Measures in Compound Circumstances



7 Response to Large-Scale and Unconventional Disasters

When disasters such as natural disasters occur in any part of the country, the SDF works in collaboration with municipal governments, engaging in the search for and rescue of disaster victims or missing ships or aircraft, controlling floods, offering medical treatment, preventing epidemics, supplying water, and transporting personnel and goods. In particular, over 100,000 SDF personnel were dispatched at a peak time for relief operations for the large-scale earthquake and nuclear disaster based on the Great East Japan Earthquake in March 2011.

1 Outline of Disaster Relief Dispatches

(1) Types and Frameworks of Disaster Relief Dispatches

a. Dispatches upon Request

(General Form of Disaster Relief Dispatch)

In principle, disaster dispatch is carried out at the request of prefectural governors and other officials[1]. This is because prefectural governors and other officials assume primary responsibility for disaster control measures and are in a position to grasp the overall conditions of the disaster, and it is considered most appropriate for dispatches to be made upon their request in consideration of disaster relief capabilities within the prefecture or municipality including police and firefighting.

1 The Director General of the Japan Coast Guard, the Director General of the Regional Maritime Safety Headquarters, and the Director of Airport Administrative Office may request disaster dispatch.

Municipal mayors can ask prefectural governors to request a disaster relief dispatch by the SDF. In the event that mayors are unable to make such a request to the prefectural governor, they can inform the Minister of Defense, or those designated by the Minister of the disaster conditions.

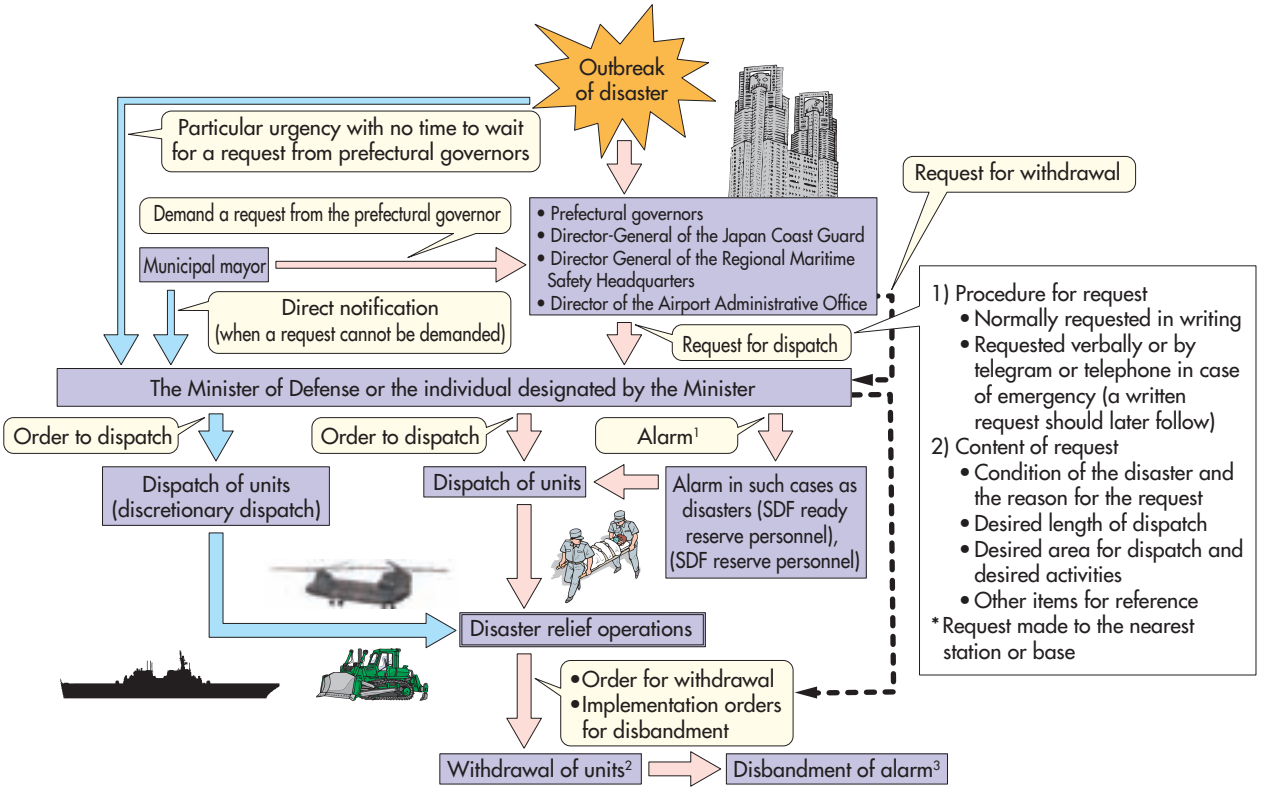
After receiving such requests from governors, the Minister of Defense or other personnel designated by the Minister can immediately dispatch units as necessary according to the disaster situation.

Under circumstances of particular urgency when there is no time to wait for a request, the Minister of Defense or those designated by the Minister may authorize an exceptional dispatch (discretionary dispatch). In order to render discretionary dispatches even more effective, the Disaster Prevention Plan[2] was amended in 1995 to establish the basis[3] for SDF unit commanders and other officials to order discretionary dispatches.
(See Fig III-1-2-15)

b. Earthquake Disaster Relief Dispatch

When an alert[4] is issued based on the Law Concerning Special Measures for Large-Scale Earthquakes Countermeasures[5], the Minister of Defense is authorized to order an earthquake disaster relief dispatch based on the request of the Director of the Earthquake Disaster Warning Headquarters (the Prime Minister), even prior to the occurrence of an earthquake.

Fig. III−1−2−15 Flow of Events from the Point of Request to Dispatch and Withdrawal



Notes: 1. SDF ready reserve personnel and SDF reserve personnel will be called on if necessary.
2. Units are all withdrawn together.
3. Disbandment of SDF ready reserve personnel and SDF reserve personnel.

2 The Ministry of Defense Disaster Prevention Plan. See <http://www.mod.go.jp/j/approach/defense/saigai/bousai.html>

3 Unit commanders may make a dispatch in the event that 1) intelligence gathering is necessary in order to provide information to relevant organizations and bodies, 2) it is deemed impossible for the prefectural governor to make a dispatch request and immediate rescue measures are required, or 3) life-saving rescue operations occur or a fire or disaster occurs in the vicinity of Ministry of Defense facilities.

4 The Prime Minister issues an earthquake alert with the endorsement of the Cabinet in the event that an earthquake has been predicted and when it is deemed necessary to urgently implement emergency earthquake disaster prevention measures.

5 See <http://www.bousai.go.jp/jishin/law/014-1.html>

c. Nuclear Disaster Dispatch

When a nuclear emergency alert is issued based on the Special Law on Nuclear Disaster Countermeasures[6], the Minister of Defense is authorized to order a nuclear disaster dispatch upon request of the Director of the Nuclear Disaster Countermeasures Headquarters (the Prime Minister).

(2) Authority of SDF Officers in Disaster Relief Dispatches

Under the Self-Defense Forces Law and other legislation, the authority of the officers of units requested for disaster relief dispatches, earthquake disaster prevention dispatches, or nuclear disaster dispatches to conduct effective operations is stipulated.

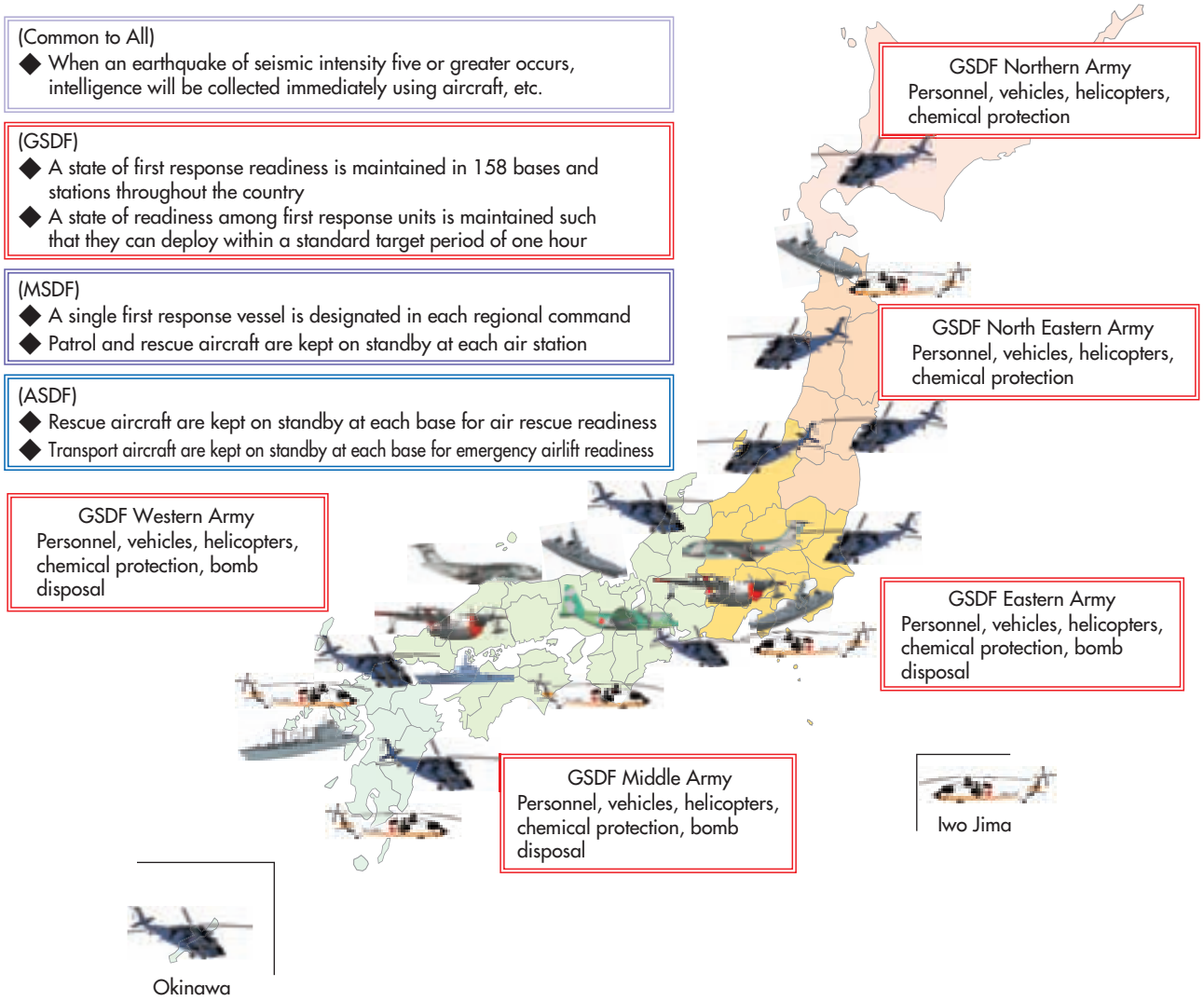
See Reference 22

(3) Initial Response to Disasters

Based on lessons learned from the Great Hanshin-Awaji Earthquake disaster, the SDF has put in place arrangements for an initial response, as shown in Fig. III-1-2-16, to ensure disaster relief operations are conducted promptly.

The SDF has formulated various contingency plans for responses to large-scale earthquakes, which are under consideration at the Central Disaster Management Council. For instance, because of concern about massive humanitarian and material damage in addition to damage to the central political, government, and financial functions of the capital, the Contingency Plan for Tokyo inland earthquakes stipulates

Fig. Ⅲ−1−2−16 State of Readiness for Disaster Dispatches (Standard)



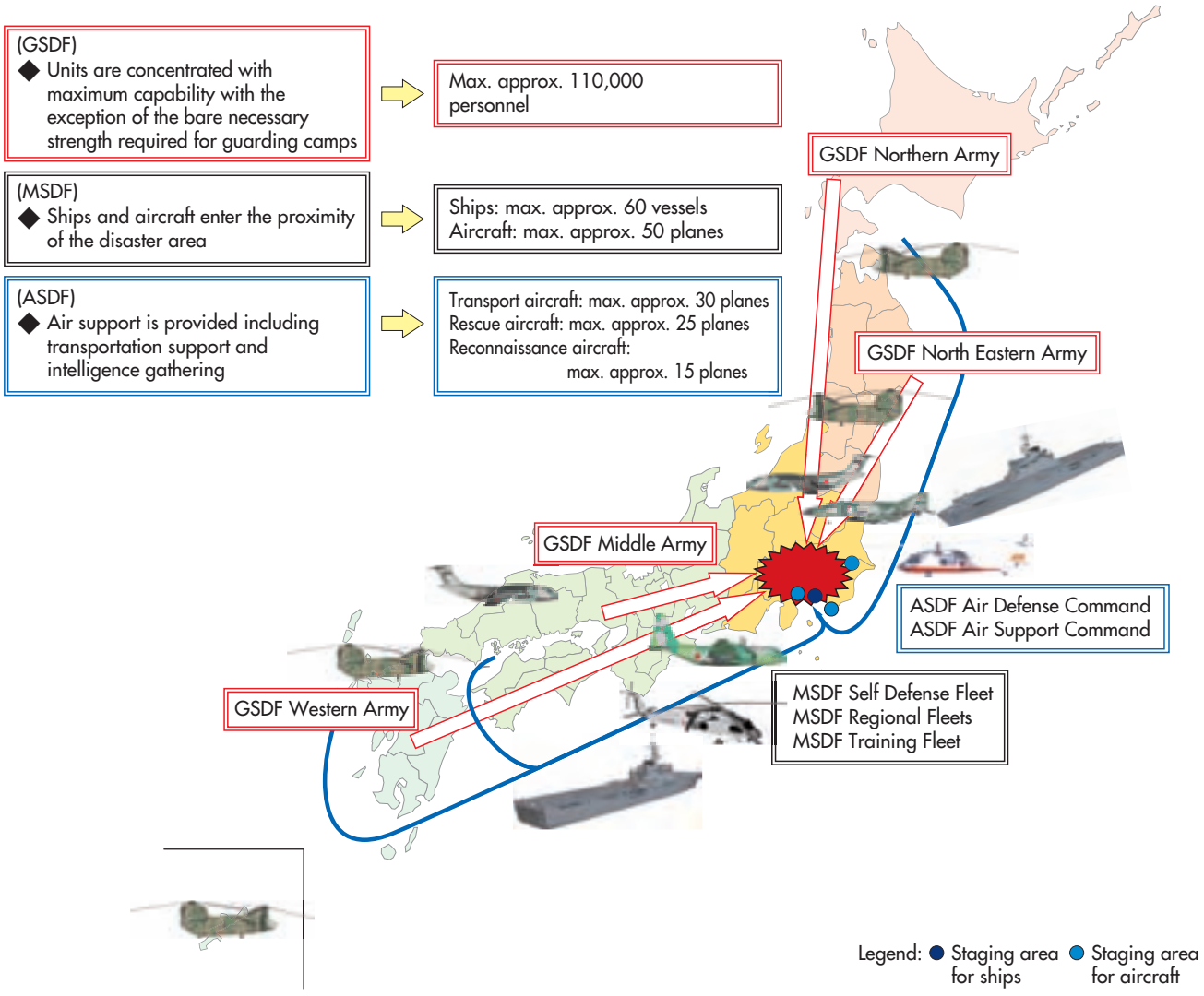
6 See <http://www.bousai.go.jp/jishin/law/002-1.html>

that each Self-Defense Force shall systematically cooperate to respond in an organized manner. By calling in SDF reserve officers and other personnel, up to around 110,000 personnel up to around 60 ships and up to around 120 aircraft can be mobilized.

In addition, a plan is being formulated to enable a similar level of response to be mobilized in response to an earthquake in the Tokai region or an earthquake in the Tonankai or Nankai regions. It is also necessary for the Government to consider countermeasures to be implemented in the event of an earthquake occurring in the Tokai region in conjunction with quakes in the Tonankai and Nankai regions (triple earthquake), so on March 31, 2012, the Committee for Modeling a Nankai Trough Megaquake, established by the Cabinet Office, published its first report concerning the distribution of seismic intensity and tsunami height in the event of a megaquake occurring along the Nankai Trough. The Ministry of Defense and SDF are also conducting the requisite deliberations in response to discussions by the Central Disaster Prevention Council.

RF-4E surveillance aircraft gathering intelligence in the area

Fig. Ⅲ−1−2−17 Response to a Direct Earthquake the Capital (Example)

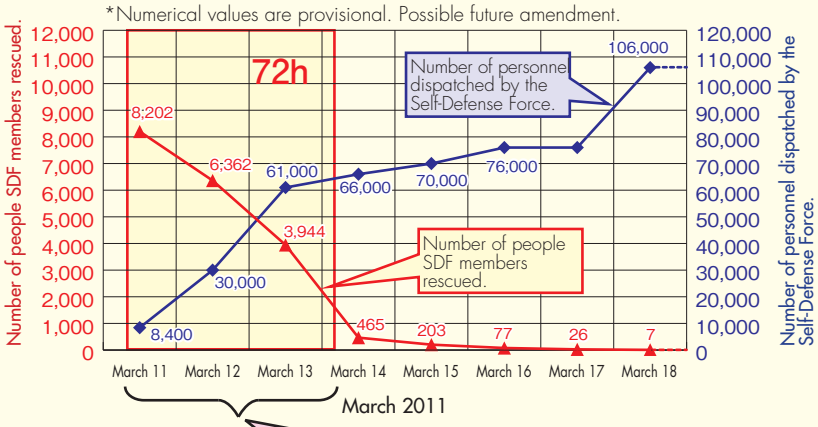


Column

VOICE | Commentary | Q&A

Importance of Initial Response (within 72 hours) in Saving Human Lives

Number of human lives saved by the SDFs after the Great East Japan Earthquake and the number of personnel dispatched.



The 72-hour period from the occurrence of disaster is critically important for saving human lives.

The graph indicates changes in the number of human lives saved after the Great East Japan Earthquake. It shows that the number of lives saved declined with the passage of time and that after the passage of roughly 72 hours, the number dropped steeply. In other words, success of rescue activity depends on how quickly after the occurrence of disaster a large number of personnel can be deployed for rescue activity.

In light of that, it is necessary to routinely maintain a system that enables the SDFs to develop close relationship with local communities and make an initial response quickly.

For example, in order to enable initial response to be made quickly anytime and anywhere in response to any emergency, the Ground SDF keeps personnel stationed in 158 garrisons and sub bases (131 garrisons and 27 sub bases) across Japan. With those garrisons and sub bases as its footholds, the Ground SDF keeps operating units standby in each army group for quick dispatch to deal with various emergencies, including disasters.

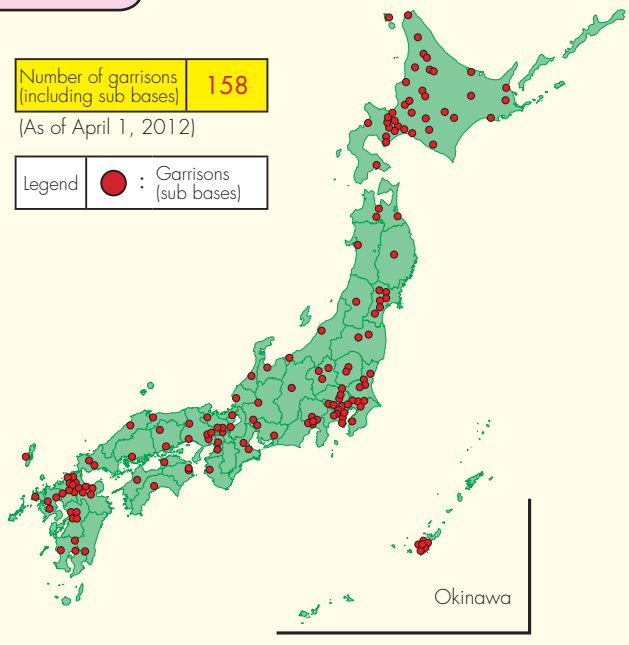
Because of this standby system, the Ground SDF quickly made an initial response on a large scale after the Great East Japan Earthquake; for example, around 8,400 personnel were deployed to engage in rescue activity on the day that the earthquake occurred.

SDF engaging in rescue activity

Number of garrisons (including sub bases)	158

(As of April 1, 2012)

Legend ● : Garrisons (sub bases)



Routinely maintaining a system that enables units stationed in local communities to make an initial response quickly.

(See Fig. III-1-2-17)

2 Response to Disasters

(1) Transportation of Emergency Patients

The SDF uses its aircraft to transport emergency patients from isolated islands and remote areas with insufficient medical facilities (transportation of emergency patients). In FY2011, out of a total of 586 cases of disaster relief operations, 444 cases involved the transportation of emergency patients, with dispatches to the Nansei Islands (Okinawa and Kagoshima Prefectures), the Goto Islands (Nagasaki Prefecture), the Izu Islands, and the Ogasawara Islands representing the majority of such cases.

Furthermore, in the event that aircraft of other organizations are unable to respond, due to reasons including a short flight range, SDF aircraft will handle transportation of emergency patients from vessels navigating areas of ocean far from the mainland and transport patients in critical condition with C-130 transport aircraft operated by the Mobile Medical Unit as a part of wide-area medical transportation operations.

An ASDF CH-47 transporting an emergency patient from Tsushima

An MSDF UH-60J rescuing 12 crew members from a Taiwanese fishing boat that caught fire in the waters off Iwo Jima

(2) Firefighting Support

In FY2011, there were 60 dispatches of firefighting support, the second largest number of dispatches after transportation of emergency patients. Within this category, responses to fires in areas nearby SDF facilities were the largest in number, with 54 cases in FY2011. Furthermore, upon the request of prefectural governors for disaster relief dispatches, the SDF also conducts aerial firefighting activities in locations where firefighting conditions are difficult, such as mountain and forest areas. (See Fig. III-1-2-18)

See Reference 30

Fig. III-1-2-18

Record of Disaster Relief Dispatches (FY2011)

Description	Number of dispatches	Personnel	Vehicles	Aircraft	Vessels
Responses to storm, flood, and earthquake disasters	7	35,382	11,595	201	0
Transporting emergency patients	444	2,290	5	483	0
Search and rescue	31	2,995	390	90	2
Assisting firefighting	60	2,066	164	85	0
Other	44	761	23	109	0
Total	586	43,494	12,177	968	2

(3) Response to Natural Disasters

In September 2011, landslides occurred and the water supply was cut off on the Kii Peninsula, due to Typhoon No. 12. Consequently, on the 3rd and 4th of that month, the governors of Wakayama Prefecture, Mie Prefecture and Nara Prefecture submitted a request for a disaster relief deployment, in order to save lives. In the Wakayama Prefecture municipalities of Shingu, Tanabe, Nachikatsuura and Hidakagawa, a team consisting mainly of troops from the 37th Infantry Regiment rescued stranded people, searched for missing people, and provided support for the supply of water; the Governor of Wakayama Prefecture requested their withdrawal on the 29th of that month. In Mie Prefecture, a team consisting mainly of troops from the 33rd Infantry Regiment provided support for the supply of water and transported supplies; the Governor of Mie Prefecture requested their withdrawal on the 14th of that month. In Nara Prefecture, a team consisting mainly of troops from the GSDF 4th Engineer Brigade provided support for the supply of water, transported supplies and eliminated road obstacles; the Governor of Nara Prefecture requested their withdrawal

on October 14. During this period, units including the GSDF Middle Army Aviation Group conducted search activities and transported supplies to the Kii Peninsula using aircraft. A total of approximately 31,093 personnel, around 10,479 vehicles and 170 aircraft were dispatched during this disaster relief deployment.

Moreover, due to Typhoon No. 12 and Typhoon No. 15, which occurred in the same month, requests for disaster relief deployments to save lives were received between the 20th and the 22nd of the same month from the governors of Aichi, Miyagi and Fukushima Prefectures. In Aichi Prefecture, a team consisting mainly of troops from the 35th Infantry Regiment and the ASDF 1st Tactical Airlift Group carried out rescue and flood prevention activities, such as building walls of sandbags, in Nagoya and Kasugai. In the town of Matsushima in Miyagi Prefecture, the 22nd Infantry Regiment carried out rescue operations to assist local citizens who had been cut off by the heavy rain; the 6th Artillery Regiment carried out similar operations in the city of Koriyama, in Fukushima Prefecture. A total of approximately 935 personnel and around 111 vehicles were dispatched during this disaster relief deployment.

During the period from mid-January to early February 2012, heavy snow resulted in severe damage, so the governors of Hokkaido, Aomori Prefecture and Shiga Prefecture requested disaster relief deployments to provide support in clearing the snow. In Hokkaido, the GSDF 12th Engineer Group (Construction) carried out disaster relief operations, providing support for the removal of snow from municipal roads in the cities of Iwamizawa and Mikasa from January 17 to 22, and in Mikasa City from February 14 to 16. In Aomori Prefecture, vehicles became stranded on the national highway in Yokohama Town on February 2, due to a blizzard, so troops from the MSDF Ominato District and the 25th Air Squadron carried out disaster relief operations focused on confirming the safety of those inside stranded vehicles, checking the status of the national highway, and mobilizing helicopters to gather information. In Shiga Prefecture, on February 2 and 3, the 3rd and 10th Tank Battalions, etc. carried out disaster relief operations, providing support in clearing snow from community roads in mountainous areas of Takashima.

GSDF troops searching for missing persons during their disaster relief deployment in response to Tropical Storm Talas

3 Efforts for Preparation for Disaster Relief

(1) Efforts in Preparation for Disaster Relief

In order to respond to various disasters – including large-scale earthquakes – with speed and accuracy, the SDF carries out various disaster prevention drills including joint exercises for rescue, in addition to formulating disaster relief plans. The SDF also actively participates in local government disaster prevention drills.

In FY2011, various emergency drills were carried out with the objective of maintaining and improving the ability to carry out disaster relief missions swiftly and accurately in times of disaster, such as major earthquakes, and many of the issues relating to the response in the event of a disaster that arose due to the Great East Japan Earthquake were actively incorporated into disaster prevention exercises. Specifically, this included 1) participation in the "Disaster Prevention Day" government headquarters management exercise (exercise for responding to an earthquake directly hitting the Tokyo metropolitan area), 2) implementation of a Ministry of Defense disaster operations headquarters management exercise (exercise for responding to an earthquake directly hitting the Tokyo metropolitan area), 3) participation in a comprehensive training exercise in conjunction with a joint disaster prevention exercise involving nine cities and prefectures, 4) participation in an exercise in conjunction with Shizuoka Prefecture's comprehensive disaster prevention exercise, and 5) participation in comprehensive disaster prevention exercises carried out by related local governments.

In addition, in June 2011, in light of responses to the Great East Japan Earthquake, the Ministry of Defense concluded agreements[7] with civilian communications carriers concerning the installation of temporary lines for use by local SDF units in their activities in the event of a disaster, and the provision of

7 In addition to regular practice drills and exchanges of opinions in times of peace, agreements have been drawn up that cover matters arising in the event of a disaster, such as 1) the sharing of information about the disaster and the situation on the ground (including the transmission of video footage obtained from helicopters); 2) the installation of temporary lines for use by local SDF units in their activities in the event of a disaster, and the provision of mobile phones and satellite phones by civilian communications carriers; and 3) the provision to civilian communications carriers by the SDF of the equipment and materials required in order to restore communication lines, as well as the transport of their personnel.

GSDF troops participate in the Okinawa Prefecture comprehensive disaster prevention drill held in the city of Ishigaki

mobile phones and satellite phones.

(2) Cooperation with Local Governments

It is also important for the SDF to strengthen cooperation with local governments in peacetime in order to conduct disaster relief operations smoothly.

For this reason, the SDF participates in a number of disaster prevention drills and is proceeding with the strengthening of cooperation with local governments including enhancing information liaison systems and consistency with disaster control plans.

Specifically, 1) the post of Liaison and Coordination Officer for Citizen Protection and Disaster Relief Operation Countermeasures was created at the SDF Regional Cooperation Headquarters to work at ensuring cooperation with local governments in peacetime.

Also, 2) in addition to assigning an SDF officer to the department in charge of disaster prevention for Tokyo, mutual exchange is being carried out between administrative officials of both the GSDF Middle Army Headquarters and Hyogo Prefecture. Furthermore, 3) in response to requests from local governments, retired SDF officers with knowledge in disaster prevention are being endorsed. As of the end of March 2012, the total number of retired SDF officers working in disaster prevention in local governments was 227 individuals in 45 prefectures and 134 municipalities throughout the country.

Personnel-related cooperation with local governments using the knowledge of SDF personnel is a very effective method of improving cooperation with those governments, and its efficacy was confirmed during the Great East Japan Earthquake.

See Reference 31

At the same time, the Ministry of Defense and the SDF believe that carrying out efforts such as the following are important in order to carry out operations more effectively during disaster dispatch in local governments as well.

- ○ Securing Staging Areas and Heliports
- ○ Marking Building Numbers
- ○ Securing Facilities for Liaison and Coordination
- ○ Arrangements for Materials and Equipment

(3) Development of a Response Manual for Various Disasters

Clarifying basic responses in advance and consolidating the recognition of parties concerned is an effective way of responding more promptly and appropriately to disasters that occur in various forms. For this purpose, in November 2000, the Defense Agency and SDF developed a response manual[8] for various types of disasters which compiled issues to be noted for each type of disaster. Copies of this manual were distributed to relevant organizations and local public bodies.

(4) Response to Nuclear Disasters

The Special Measures Law on Nuclear Disaster Countermeasures was enacted based on lessons learned from the critical accident that occurred at the uranium processing plant in Tokaimura, Ibaraki Prefecture in 1999. In accordance with this, the Self-Defense Forces Law was partially revised.[9]

Following the nuclear criticality accident at Tokaimura, the ASDF, GSDF, and MSDF have provided transport support, assistance for evacuating residents and monitoring of airborne and seaborne radiation levels in comprehensive nuclear disaster prevention exercises conducted primarily by the Ministry of Economy, Trade and Industry since 2000. This serves to improve effectiveness including a review of cooperation guidelines between government agencies and local bodies at the time of a nuclear disaster.

Furthermore, efforts are being made to improve capabilities for responding to NBC in order to deal not only with nuclear disasters, but also with other special disasters[10].

8 Manual for Responses to Disasters in Urban Areas, Hilly and Mountainous Areas, Islands and Special Disasters. See <http://www.mod.go.jp/j/approach/defense/saigai/pdf/hyoushi02.pdf>

9 1) SDF units can be dispatched to provide assistance upon a request of the Director of the Nuclear Disaster Countermeasures Headquarters, 2) SDF personnel dispatched for nuclear disaster relief may exercise necessary authority, 3) special units may be temporarily formed when necessary for nuclear disaster relief dispatches, and 4) SDF Ready Reserve Personnel may be called up for service in the event of nuclear disaster relief dispatches.

10 Special-type disasters may be caused by terrorist or armed attacks using weapons of mass destruction.

8 Readiness against Full-Scale Invasions

The 2010 NDPG requires Japan to ensure superiority in obtaining information through continual information collection, monitoring and surveillance, and reconnaissance operations within and around Japan as well as to immediately and seamlessly respond to various changing situations. It states that it is highly unlikely that large-scale invasions against Japan will take place through massive landing of enemy aircraft or troops, but that Japan needs to make minimum necessary preparations to address unpredictable changes in situations since the country should not deny the possibility of such events ever taking place in the future.

In case Japan faces a large-scale invasion, the SDF will respond to the situation in an aligned and systemic manner based on their integrated operations. Their operations are categorized into 1) operations for aerial defense, 2) defense operations protecting waters around Japan, 3) operations protecting the land, and 4) operations ensuring security in maritime transportation, based on the characteristic of their purposes. In executing these operations, the U.S. forces will assist the operations implemented by the SDF and deploy operations to complement the capabilities of the SDF, including the use of striking power, in line with the Guideline for the U.S.-Japan Defense Cooperation.

The following explains how the SDF will typically implement operations.

See Chapter 2, Section 1-3; References 22, 23

1 Operations for Aerial Defense

Based on the physical condition of Japan surrounded by the sea and the features of modern wars[1], it is expected that Japan will be hit by repeated rapid aerial attacks by aircraft and missiles in case a full-scale invasion against Japan occurs.

Operations for aerial defense are characterized by the importance of initial response influencing the whole operations. Thus, Japan needs to maintain its readiness for quick initial response on an ongoing basis, regularly collect information, and rapidly and comprehensively exert combat capabilities from the onset of operations.

Operations for aerial defense can be categorized into the comprehensive aerial defense mainly conducted by the ASDF and the individual aerial defense conducted by the GSDF, MSDF, or ASDF for their bases or troops. The comprehensive aerial defense aims to deal with enemy aerial attacks at the farthest point from our territory, prohibit enemies from gaining air superiority[2], and prevent the damage to our citizens and territory as well as inflict great damage to enemies and curb their capability to continue aerial attacks.

(See Fig. III-1-2-19)

(1) Detecting Invading Aircraft

We need to leverage the radars of the Aerial Defense Alert Unit and early alert aircraft to virtually monitor all the airspace around our territory and detect invading aircraft and other object at the earliest timing.

(2) Recognizing the Types of Detected Aircraft

We need to leverage JADGE[3] or other systems to recognize whether detected aircraft are either for or against us.

(3) Intercepting or attacking enemy aircraft

As we detect enemy aircraft, the Aerial Defense Alert Unit defines targets for fighter jets or surface-to-air missile units on the ground to attack and destroys enemy aircraft with controlled or guided fighter jets and surface-to-air missiles.

2 Defense Operations Protecting Waters around Japan

As the islands of Japan are attacked with arms, aerial attacks are expected to be combined with attacks against our ships and territory by enemy destroyers. In addition, transport vessels could be deployed to enable massive enemy ground forces to invade our territory.

Our defense operations protecting the waters around Japan are composed of measures at sea, measures in waters around our coasts, measures in major straits, and aerial defense above waters around Japan. We need to protect the waters around our country by combining the results of these multiple operations, blocking the invasion of our enemies, and attacking and depleting their capabilities.

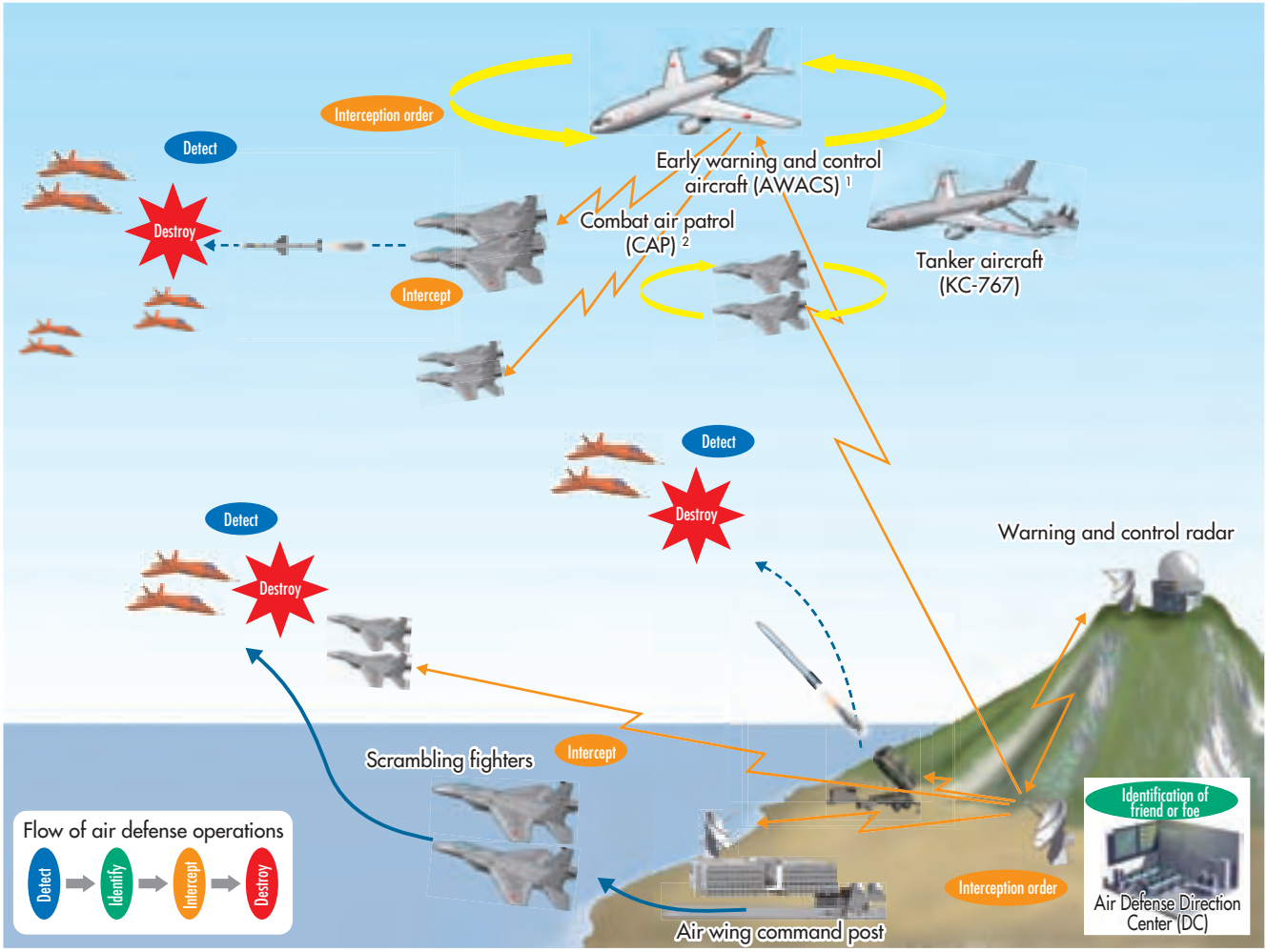
(See Fig. III-1-2-20)

1 Aerial attacks are important elements influencing the results of modern wars. It is vital to obtain air superiority before or at the same time as implementing ground or maritime operations.

2 The degree of dominance in the air battle of one force over another that permits the conduct of operations by the former without prohibitive inference by opposing air forces

3 A nationwide air defense system that automates the process of conveying and dealing with commands and tracking information

Fig. III－1－2－19 Example of Air Defense Operations



Notes: 1. Aircraft with alternative control capabilities for defense ground environments, with early warning and control functions in waters distant from national land.
2. Keeping armed fighters on standby in order to immediately respond to approaches by enemy aircraft.

(1) Measures At Sea

We patrol a vast area of water with our patrol aircraft and monitor sea areas used for ship navigation by our escort vessels. Should enemy ships or submarines trying to attack our ships be detected, we need to use our escort vessels, submarines, and patrol aircraft to destroy them by leveraging the support of our fighter jets as required (anti-surface or anti-submarine warfare).

(2) Measures in Waters around Our Coasts

Our escort vessels, mine sweepers, patrol aircraft, and reconnaissance aircraft patrol our major ports to detect enemy attacks at an early stage. In particular, we need to leverage our escort vessels, submarines, fighter jets, and surface-to-air missiles to attack them (anti-surface or anti-submarine warfare) and ensure the safety of our ships and waters around our coasts.

If enemies deploy mines at sea, we will remove them by our mine sweepers and other vessels (anti-mine warfare).

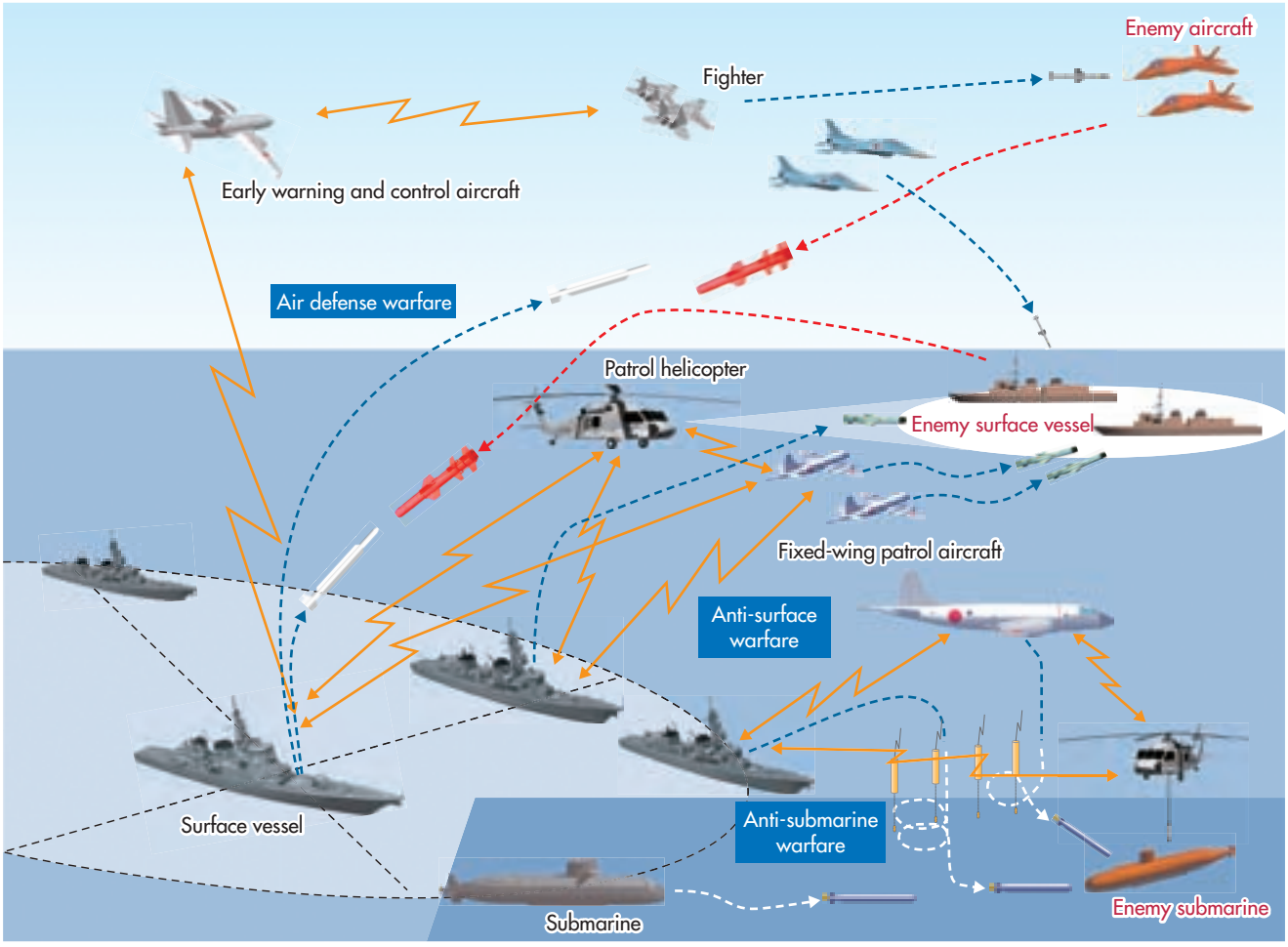
(3) Measures in Major Straits

We patrol our major straits with our escort vessels, patrol aircraft, and reconnaissance aircraft to detect enemy ships and submarines trying to pass them at an early stage. In particular, we need to leverage our escort vessels, patrol aircraft, submarines, fighter jets, and land-to-sea missiles to attack them (anti-surface or anti-submarine warfare). We also deploy mines in major waters with our minesweeper tenders, submarines, and aircraft (mine deployment warfare).

(4) Aerial Defense above Waters around Japan

We engage in the aerial defense above waters around Japan by our escort ships (anti-air warfare) with the support of our fighter jets as required.

Fig. Ⅲ－1－2－20 Strategy for Defense in Sea Areas Surrounding Japan



3 Operations Protecting the Land

As enemies try to invade the islands of Japan, they are expected to obtain sea and air superiority by attacking our country head-on, following the move by landing ground troops from the sea and airlift troops from the air.

Invading ground and airborne troops find it difficult to exert systemic capabilities while they are moving on their vessels or aircraft or right before or after they land in our territory. As we protect our land, we need to take note of this weakness to deal with our enemies between coastal and sea areas or at landing points as much as possible and attack them at an early stage.
(See Fig. III-1-2-21)

(1) Measures in Waters around Our Coasts

We need to leverage our escort vessels, submarines, patrol aircraft, fighter aircraft, and land-to-sea missiles to attack at sea enemy vessels transporting ground troops to the maximum extent, destroying their capabilities and annihilating their intention to invade our country.

We also leverage our fighter aircraft and surface-to-air missiles to destroy enemy aircraft in the air transporting ground troops as much as possible.

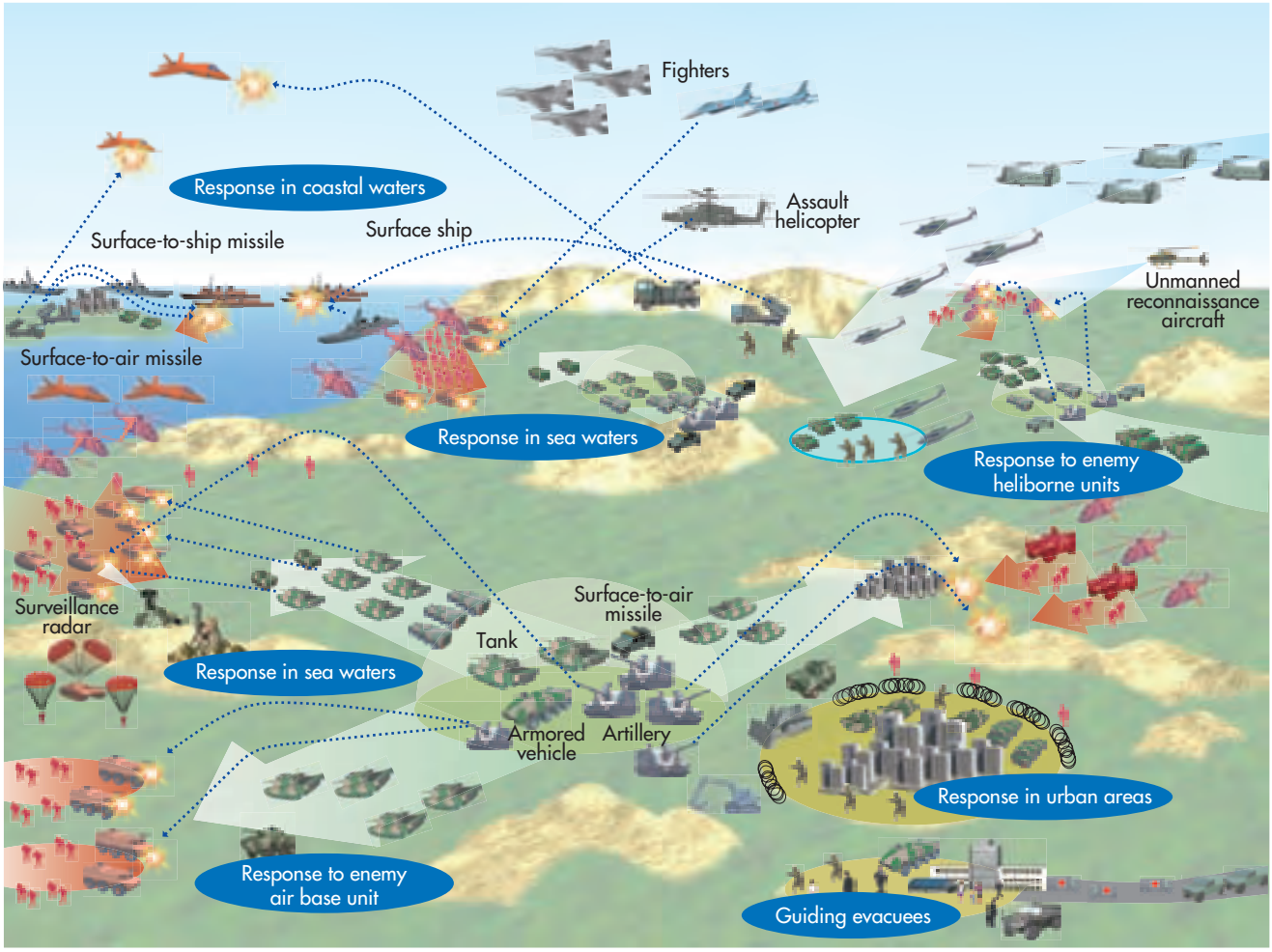
(2) Measures in Coastal Areas

We need to deploy mines with our minesweeper tenders and coastal mines with our coastal mine deployment equipment, blocking and preventing the actions of our enemies.

We deal with enemy troops trying to land in our territory by blocking their actions with our tanks, anti-tank weapons, and battlefield firearms[4] deployed in coastal areas at the initial stage. In case they land in our territory, we block and attack their

4 Equipped with long-haul and large-diameter howitzers and rockets and used to attack and block infantry troops, light armored vehicles, and facilities.

Fig. III－1－2－21 Example of Operations for Coping with the Landing of Invading Forces



invasion with our mobile attack capability[5] based on battlefield firearms, anti-tank missiles, and tanks. Fighter jets assist the battles being conducted in affected areas.

As we deal with airborne attacks[6] and heliborne attacks[7] conducted in conjunction with the landing of enemy ground troops, we will destroy them at an early stage by leveraging our battlefield firearms and the mobile attack capability.

We also use anti-air firearms including surface-to-air missiles to wage in anti-air warfare (individual aerial defense operations).

(3) Measures in the Inner Territory

In case we cannot destroy enemy ground troops as or before they land in our territory, we leverage our deployed troops to block their invasion with the support of fighter jets (endurance operations). In the meantime, we accumulate as many troops as possible to attack our enemies and destroy invading enemy ground troops.

(4) Measures Taken in Each Phase

In each of these phases, we use our escort vessels, submarines, fighter jets, and patrol aircraft to block enemy vessel transportation assisting enemy ground troops and disrupt logistical routes

5 The action based on the attacks by tanks and armored vehicles to destroy enemy attacks

6 The operation based on invading troops on board transport aircraft, landing near important locations and engaging in attacks on the ground. Conducted by specially created, equipped, and trained troops that can quickly move for a long distance through the air

7 The operation implemented on the ground after attacking troops are transported near important locations by helicopter and other aircraft, enabling simpler preparation and easier operations in comparison with airlift attacks

at sea as well as to protect our air space, collect information, and transport troops and supplies as required by our operations.

4 Operations Ensuring Security in Maritime Transportation

Japan depends upon other countries for the supply of much of its resources and food, making maritime transportation routes vital assets of our country. Furthermore, in case our country comes under armed attacked, they ensure the survival and prosperity of our country as well as set the foundation to maintain our warfare capabilities and enable the U.S. forces to come and assist in the defense of Japan. Therefore, we need to enhance our operations to ensure the safety of our maritime transportation.

Our operations ensuring security in maritime transportation can be done in waters several hundred nautical miles around Japan or in sea lanes.[8]

In case we implement operations in several hundred nautical mile waters around our country, we combine anti-sea, anti-submarine, anti-air, and anti-mine operations to patrol and defend our ships and protect our straits and ports for the security of our maritime transportation.

In case we implement our operations based on sea lanes, we define them in waters covering around 1,000 nautical miles, periodically patrol the defined areas, detect and address attacks by emery vessels or submarines at an early stage, and directly defend Japanese ships as required.

Escort vessels engage in the aerial defense for Japanese ships on maritime transportation routes (anti-air warfare), with the support provided by fighter jets and other aircraft as required.

9 Response to Other Events

1 Improvement in Guard Postures for SDF Facilities

(1) Operations for Guarding SDF Facilities

When there is a danger of a terrorist attack on facilities and areas of the SDF and USFJ within Japan and in the event that it is deemed particularly necessary to prevent damage, the Prime Minister may order SDF units to conduct operations to guard facilities and areas (guarding operations).

Part of the authority given to police officials under the Law Concerning the Execution of Duties of Police Officials are applied correspondingly to SDF personnel dispatched for guarding operations[1]. Further, the amended Self-Defense Forces Law provides that SDF personnel have authority to use weapons beyond the limitations of Article 7 of this law.

See References 22, 23

The Ministry of Defense and the SDF exchange opinions concerning guarding operations with the police and Japan Coast Guard in order to ensure the effectiveness of such operations. In addition, exercises for guarding operations have been conducted at USFJ facilities and areas throughout Japan since 2003.

(2) Use of Arms to Regularly Protect SDF Facilities

Rules have been defined[2] for SDF officers to use arms for the protection of domestic SDF facilities[3] based on their specified purposes.

2 Maintaining Posture to Transport Japanese Nationals Overseas

In the event of disasters, insurgency, and other emergencies overseas, the Minister of Defense may transport overseas Japanese nationals upon request from the Minister for Foreign Affairs and subsequent consultations. In such cases, the SDF receive the Japanese nationals from diplomatic establishments abroad at an airport or a sea port in the country of deployment, and have custody of them to safely guide them to transport aircraft and ships. All service branches of the Self-Defense Forces maintain operational readiness, with the GSDF designating helicopter unit and escort unit[4] personnel, the MSDF designating transport ships and air units, and the ASDF designating airlift units and personnel.

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8 - 8 Relatively safe marine areas defined to enable the transportation of ships. The locations and width of sea lanes change depending on the situation of a specific threat.

9 - 1 Limited to cases where there are no police officers at the scene, SDF personnel on duty are authorized to make enquiries, undertake evacuation measures and enter property in addition to their authorized duties of preventing and controlling crimes and usage of weapons.

2 Facilities and equipment for the storage, accommodation or maintenance of SDF weapons, ammunition, explosives, ships, aircraft, vehicles, wired telecommunications equipment, wireless telecommunications equipment or liquid fuels, barracks, harbors, and airports

3 SDF personnel may use weapons to the extent deemed to be reasonably necessary in situations within applicable facilities in the event that it is considered that the use of such weapons is required to execute duties or to protect themselves or others. Weapons must not be used to cause harm to other people except in cases of self-defense or acts of emergency evacuation.

4 Units temporarily organized to be dispatched along with transport units (SDF aircraft or ships) to guide and protect Japanese nationals overseas on site

Since the transport of overseas Japanese nationals needs to be carried out through the collaboration among the Ground, Maritime, and Air Self-Defense Forces, joint exercises are carried out using transport aircraft and vessels.

People boarding a KC-767 mid-air refueling and transport aircraft during a training for the transport of Japanese nationals resident overseas, etc.

The Ministry of Defense participates in the exercise for the transportation of Japanese nationals abroad, in the annual multinational joint exercise "Cobra Gold" in Thailand, with local Japanese Embassy staff, their family members, and Japanese Embassy staff located outside of Thailand, based on the support provided by the Japanese Embassy in Thailand. Through such exercises, our implementation of the coordination procedures with the Ministry for Foreign Affairs and operational skills for the SDF overseas have been improved, which have been contributing to enhance our capabilities to carry out the mission. Transport of overseas Japanese nationals has been assigned as an SDF primary mission since January 2007.
(See Fig. III-1-2-22)

See References 22, 23

Column VOICE Commentary Q&A

Digitization of the Ground SDF

Since fiscal 2007, the Ground SDF has been conducting the C4ISR*1 unit experiments with a view to establishing the method of future warfare adapted to innovations in the field of information and communication technology. As a result of the experiments conducted so far, it became known that the use of state-of-the art C4ISR equipment enables the collection of more accurate information than before and quickly incapacitates the enemy through flexile means. In particular, it was confirmed that the use of UAV*2, UGV*3 and the firing command and control system ensures information superiority in various emergencies that may occur across wide areas and involve multiple incidents and always enables proactive operation of units. In addition, through those experiments, a new method of warfare was developed which impedes the enemy's exercise of military power by paralyzing its line of command and disrupting organized fighting capability in terms of functions.

An SDF service man using the firing command and control system

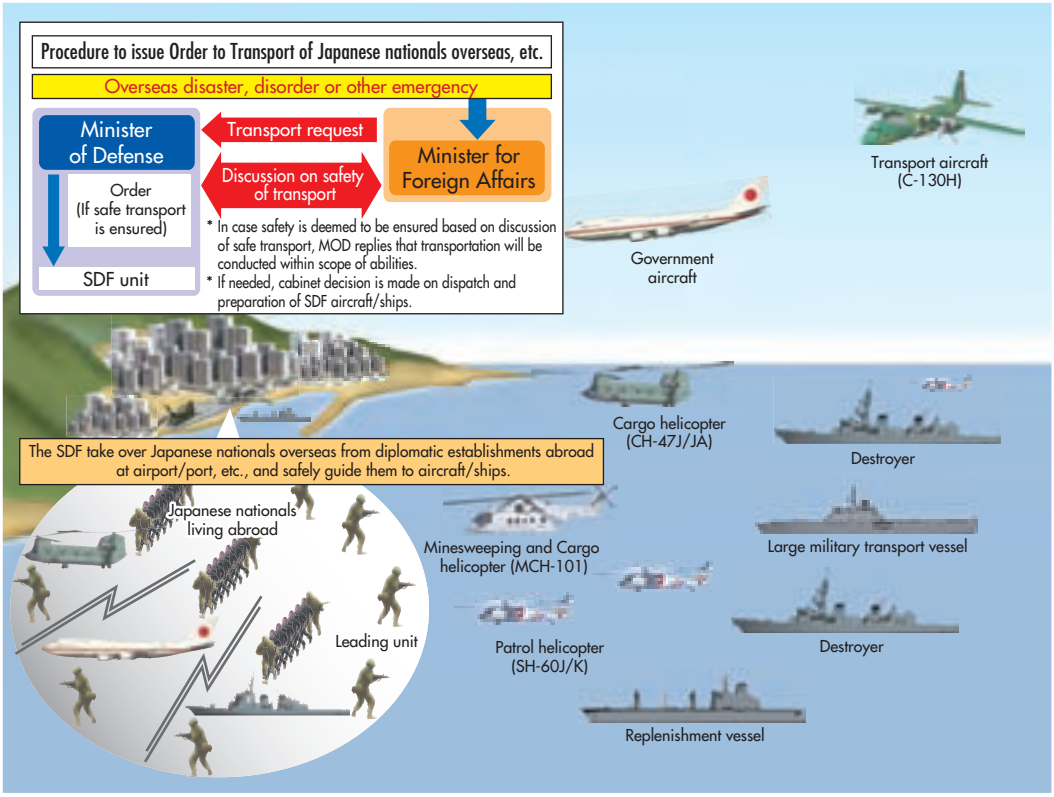
Moreover, those experiments are also intended to enable quick and flexible response to all foreseeable emergencies, including full-scale aggression, attacks on remote islands and major disasters and create a more effective Ground SDF under joint operation by developing the 2nd Division (Asahikawa) as a pioneer digitized unit.

*1 C4ISR: Command, Control, Communication, Computer, Intelligence, Surveillance and Reconnaissance

*2 UAV: Unmanned Air Vehicle

*3 UGV: Unmanned Ground Vehicle

Fig. Ⅲ－1－2－22 Ordering Procedure and Image regarding Transportation of Japanese National Overseas



3 Response to Situations in Areas Surrounding Japan

In the event of situations in areas surrounding Japan, the Ministry of Defense and the SDF will provide materials and services as rear area support and conduct rear area search and rescue activities or ship inspection activities as stipulated in the Law to Ensure Security for Situations in Areas Surrounding Japan and the Ship Inspections Operations Law.

Furthermore, these activities were designated a primary mission of the SDF in January 2007.

See Chapter 2, Section1-2; References 22, 23

4 Responses to "New-Type Flu"

Based on the government's action plan for countermeasures against the new-type flu[5], the Ministry of Defense and the SDF has prepared an MOD Contingency Plan for countermeasures against the new-type flu[6] with the goal of expressing the policy for the necessary arrangements and measures needed for swiftly and effectively carrying out new-type flu countermeasures.

As its basic policies, this plan stipulates that 1) the Ministry of Defense and the SDF will collaborate and cooperate closely with related organizations under normal circumstances, 2) in the case of an outbreak of the new-type flu, they will carry out their duties flawlessly, and 3) they will carry out the new-type

MSDF troops board a destroyer during a ship inspection drill

5 See <http://www.cas.go.jp/jp/seisaku/ful/kettei/110920keikaku.pdf>

6 See <http://www.mod.go.jp/j/press/news/2009/03/17b-02.pdf>

flu countermeasures upon requests from relevant organizations while ensuring the safety of SDF personnel. Further, specific examples of SDF activities include epidemic control measures for poultry[7], transportation of Japanese nationals overseas, quarantine support by medical officers, transportation of relief supplies, and diagnosis/treatment at the National Defense Medical College Hospital and SDF hospitals.

In order to make this plan effective, the Ministry of Defense and the SDF are proceeding with the consideration of specific operational procedures. Given this situation, in August 2009 the Joint Staff presented the specific implementation procedures for each Self-Defense Force in the event of a new-type flu outbreak and prepared "SDF Operational Procedures for New-Type Flu Measures" conducive to the swift execution of each operation. Furthermore, in June 2010, the Ministry of Defense prepared the "Ministry of Defense Operational Continuity Plan for the New-Type Flu"[8] so that functions can be maintained and necessary operations continued without interruption in the case of an outbreak of the new-type flu.

5 Military Intelligence Collection

In order for the effective operation of defense capabilities to deal with diverse situations, it is ever more necessary to acquire signs of various situations in advance and collect, analyze, and share information promptly and appropriately. In this context, broader and more comprehensive intelligence capabilities are essential for Japanese national security.

In consideration of this, the Ministry of Defense and the SDF comprehensively analyze and assess a variety of information, and have diversified the means of collecting intelligence. Some examples of intelligence collection activities include 1) collecting, processing and analyzing radio waves on military communications and radio waves emitted from electronic weapons, which are transmitted from overseas; 2) collecting and analyzing high resolution commercial satellite imagery data[9] 3) ISR activities by ships and aircraft and so on; 4) collecting and organizing a variety of open source information; 5) information exchanges with defense authorities of other nations; and 6) intelligence activities conducted by Defense Attachés and other officials[10]. Moreover, in order to enhance the capability of collecting a variety of intelligence, and comprehensively analyzing and assessing information by responding to the security environment and technical trends, the Ministry of Defense and the SDF develop capable personnel, improve equipment and devices for intelligence collection as well as strengthen the capability of intelligence organizations such as the Defense Intelligence Headquarters, which supports the abovementioned intelligence capabilities.

7 Domestic birds such as chickens, ducks, and quails

8 To deal with the new-type flu (A H1N1) based on this plan, the Ministry of Defense and the Self-Defense Forces dispatched a total of 1,260 doctors from the National Defense Medical College and the SDF to quarantine offices of Narita, Kansai, and Chubu Airports between April and June in 2010 following the request from the Ministry of Health, Labour and Welfare to assist in quarantine operations.

9 In order to enhance Japan's capability for gathering image intelligence, five intelligence-gathering satellites have been launched so far. The Ministry of Defense has properly utilized the information provided by these satellites.

10 As of January 1, 2012, 49 Defense Attachés (SDF personnel temporarily reassigned from the Ministry of Defense to the Ministry of Foreign Affairs, who are composed of 23 GSDF, 13 MSDF, and 13 ASDF officers) are posted to diplomatic missions overseas in 38 locations. Utilizing their experience as SDF personnel, these attachés are engaged in military information gathering through exchanges with defense-related personnel of their countries of assignment, as well as military attachés from other nations.