Section 2. Effective Responses to New Threats and Diverse Contingencies

In the 2004 National Defense Program Guidelines (NDPG), the primary role of defensive capability is to provide an effective response to new threats and diverse contingencies. Further, the Guideline for Formulation of the FY2010 Defense Budget also states the necessity of securing deterrence and readiness as well as the ability to respond effectively to various situations. This section explains the role of the SDF in response to new threats and diverse contingencies under the joint operations posture as well as efforts that the Ministry of Defense and the SDF have made.

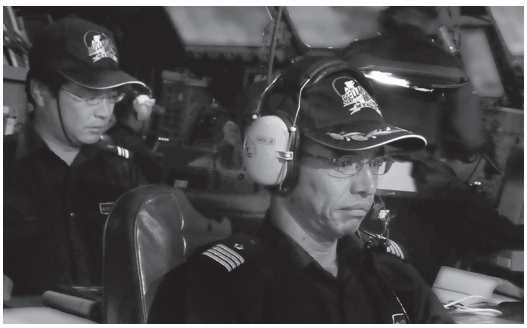
(See Part II, Chapter 2, Section 2)

1. 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, proliferation still continues.

Among the countries surrounding Japan, a great number of nuclear capable ballistic missiles are deployed. In 2006, North Korea launched seven ballistic missiles and carried out a launch which they called a launch of "an experimental communications satellite" on April 5, 2009. On July 4 of the same year they again launched seven missiles. These events serve to reconfirm that the threat from ballistic missiles is a reality.

(See Part I, Chapter 2, Section 2) (See Reference 1–2)



The Combat Information Center (CIC) of an Aegis destroyer during an SM-3 test launch

Based on this background, Japan began developing a 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. joint development of advanced BMD interceptor missiles.

Following the successful flight test of a Standard Missile-3 (SM-3) by Aegis destroyer *Kongo*[26] in 2007, the Aegis destroyer *Chokai* conducted a flight test in 2008. Further, in October 2009, the Aegis destroyer *Myoko* conducted a flight test of an SM-3 in the sea off Hawaii's Kauai Island, successfully striking its target outside the atmosphere.

In September 2008 and September 2009, flight tests of the Patriot Advanced Capability-3 (PAC-3)[27] interceptor missile were carried out at White Sands Missile Range New Mexico in the U.S., and simulated ballistic missile targets were successfully shot down.

In addition to the assignment of ballistic missile capability to the three Aegis vessels, the success in the flight test of the Patriot PAC-3 shows that Japan is steadily building up its own multi-tiered defense system against ballistic missile attacks.

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

Fig. III-1-2-1 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	• Started the deployment of Patriot PAC-3 units • SM-3 test-launch by Aegis-equipped destroyer *Kongo*
2008	• Test-launch of Patriot PAC-3 • SM-3 test-launch by Aegis-equipped 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 • Flight tests were carried out for the PAC-3 Patriot missile • SM-3 test-launch by Aegis-equipped destroyer *Myoko*

1. Japan's Ballistic Missile Defense

(1) General Situation of BMD System Development

a. Basic Concept

Japan's BMD system has been developed by improving the capability of the Aegis destroyers and Patriot systems currently maintained by the SDF. Furthermore, with Japan Aerospace Defense Ground Environment (JADGE), the basic concept is efficient execution of a multi-tier defense system with the upper tier interception by Aegis destroyers in coordination with the lower-tier interception by Patriot PAC-3.

(See Reference 28–29)

b. Configuration of the BMD System

Japan's BMD system consists of 1) Aegis destroyers to intercept ballistic missiles at the mid-course phase, 2) Patriot PAC-3 to intercept ballistic missiles at the terminal phase, 3) the sensor systems to detect and track ballistic missiles, and 4) the command, control, battle management and communications systems (C2BMC) to systematically counter ballistic missiles by effectively coordinating the weapons systems and the sensor systems.

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

c. Policy for Introducing the BMD System

In developing the BMD system, existing equipment will be utilized from the perspective of developing an effective and efficient system while reducing costs. Beginning with capability improvements of the Aegis destroyers

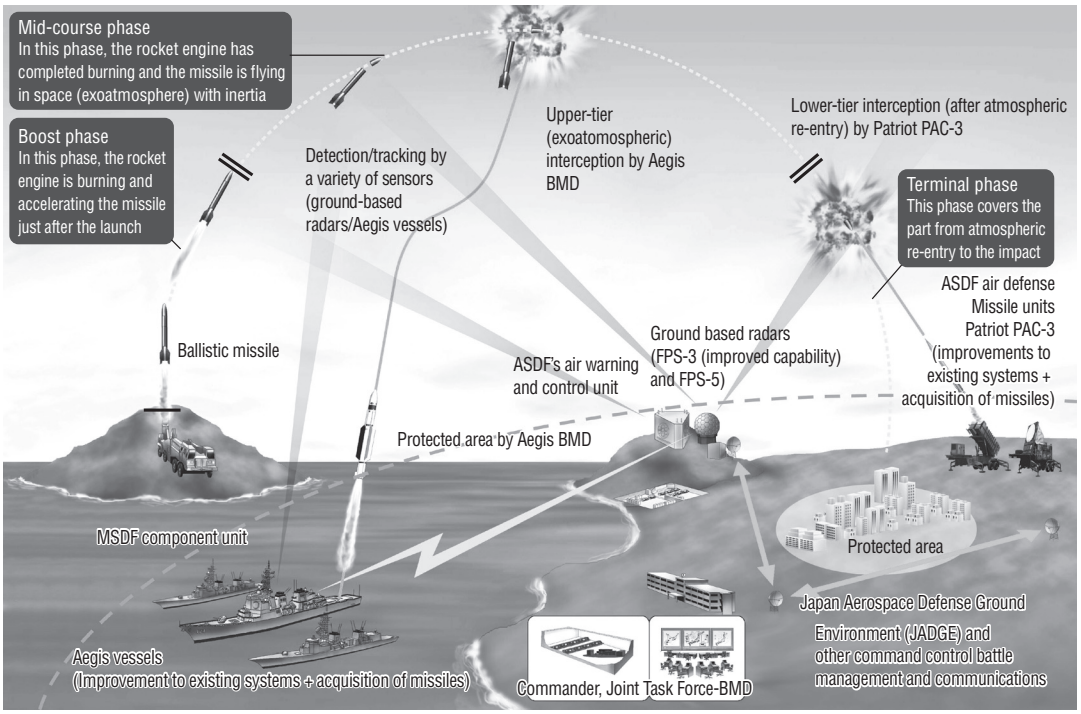
and Patriot system, an improved model of the current ground radar system will also be employed in the area of sensors, and the newly developed air warning radar (FPS-5)[28] has been introduced, which is able to deal not only with conventional airborne threats such as aircraft but also with ballistic missiles. The same also applies to JADGE.

d. Development Status of the BMD System

By the end of FY2009, the MSDF equipped its *Kongo*, *Chokai*, and *Myoko* Aegis destroyers with SM-3s, and the ASDF deployed Patriot PAC-3 to four fire units (FU) of the 1st Air Defense Missile Group (Narashino, Takeyama, Kasumigaura, and Iruma), three fire units of the 2nd Air Defense Missile Group (Ashiya, Kouradai, and Tsuiki), four fire units of the 4th Air Defense Missile Group (Aibano, Gifu, and Hakusan), and Air Defense Missile Training Group and 2nd Technical School (Hamamatsu). By way of continuing the development of the BMD system, the Ministry of Defense and the SDF have the present objective of constructing a system by FY2011 that links four Aegis

An SM-3 launched from an Aegis destroyer

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



destroyers (with added BMD capability), 16 Patriot PAC-3 Fire Units[29] (Air Defense Missile Groups and educational expenses), four FPS-5 radars and seven FPS-3 upgraded radars (improved model) through various types of command, control, battle management and communications systems, such as JADGE.

Based on the policy of improving defense capability, including ballistic missile defense, which is based on the concept in the current NDPG, the budget for FY2010 includes ¥53.8 billion for the additional acquisition of PAC-3 missiles for existing PAC-3 units, and the further increase of anti-ballistic missile capabilities including maintenance and improvement of the BMD system.

Further, the budget includes ¥61.9 billion (contract-based amount not including the cost for the first fiscal year) for maintaining the current level of existing PAC-2 units lacking BMD capability, dealing with components becoming unavailable by upgrading equipment systems.

(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.

From this perspective, a Japan–U.S. cooperative development project concerning an advanced interceptor missile commenced from 2006 based on results obtained from Japan–U.S. cooperative BMD research, which had started in 1999. Thus, efforts to improve future capabilities are being made.
(See Fig. III-1-2-3 and 4)

Fig. III-1-2-3 Recent Methods to Avoid Ballistic Missile Interception

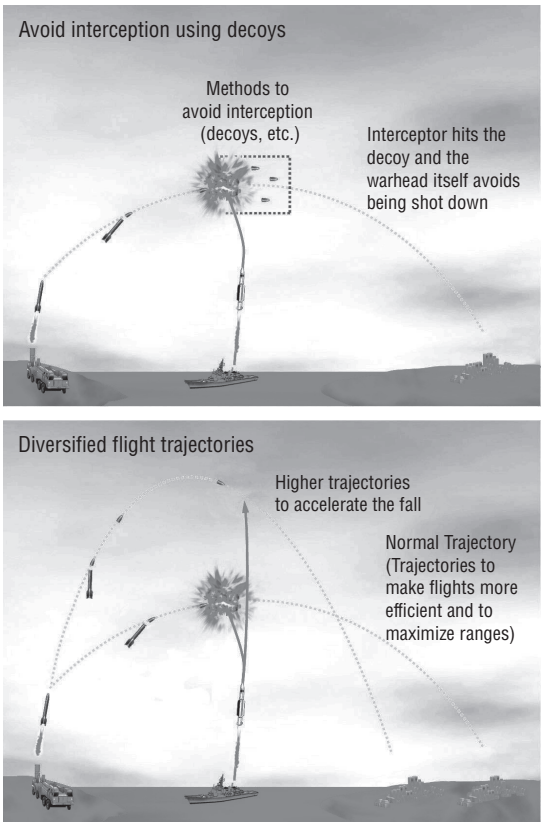
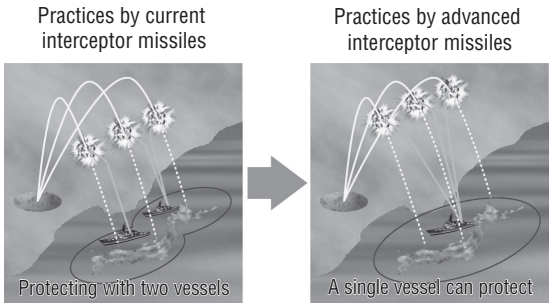


Fig. III-1-2-4 Images of Expanding Protected Areas through Future Improvement in Capabilities of BMD Missiles (Image)



2. Improvement in Legislation and Operations

(1) Legal Measures regarding Responses to Ballistic Missiles

In response to the event that ballistic missiles or other objects[30] are launched toward Japan and recognized as armed attacks, defense operation orders for armed attack situations will be ordered and the missiles will be intercepted.

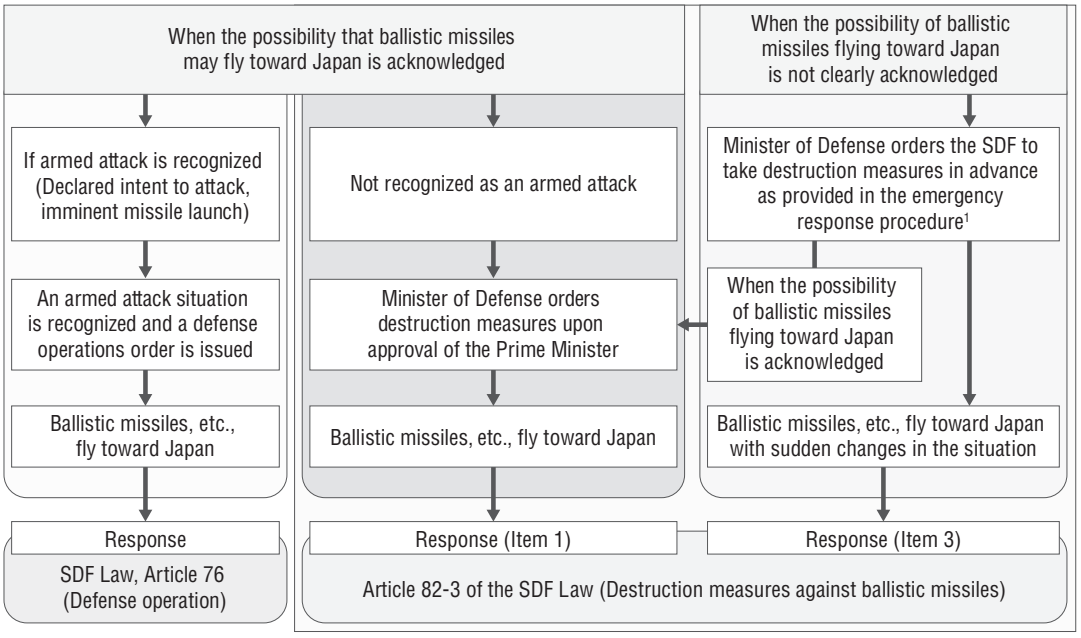
On the other hand, in the event ballistic missiles are launched towards Japan and an armed attack situation is not acknowledged, the SDF may take the following measures giving adequate consideration 1) to provide a prompt and appropriate response and 2) to ensure civilian control.

a. When the Minister of Defense determines that there is a possibility that ballistic missiles or other objects will come flying toward Japan, the Minister of Defense may order SDF units to take measures to destroy the ballistic missiles upon approval of the Prime Minister[31].

b. Furthermore, in addition to the above, there may be cases where the situation changes suddenly, such as when almost no information is available concerning missile launches or when missiles are launched mistakenly or accidentally, and there is no time for the Minister of Defense to obtain the approval of the Prime Minister. To prepare for such contingencies, the Minister of Defense may prepare emergency response procedures during peacetime that are 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 a ballistic missile when it actually does fly toward Japan.

(See Fig. III-1-2-5) (See Reference 29)

Fig. III-1-2-5 Flow of Response to Ballistic Missiles



Note 1: Formulated by the Defense Minister and approved by the Prime Minister.

(2) Concept of Ensuring Civilian Control of the Military

Responses against ballistic missiles require 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, it is also necessary to alert and evacuate the people for their protection, undertake diplomatic activities, information gathering by the departments concerned and reinforce readiness for emergencies.

In view of the gravity of such incidents and the necessity of action by the Japanese government as a whole, Prime Ministerial 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

In cases where a BMD Joint Task Force is formed to deal with incoming ballistic missiles, the Commander of the Air Defense Command is to serve as Commander, and various postures for effective defense are to be taken under a unified command through JADGE, etc. 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.

(See Chapter 2, Section 3)

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

(1) Missile Defense of the United States

The United States aims to develop a multi-tier missile defense system in which interception systems suited for each of the 1) boost phase, 2) mid-course phase and 3) terminal phase of the ballistic missile flight path are combined for complementary missile defense. These systems are being deployed as they become available[32].

(See Fig. III-1-2-6)

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 is being deployed in our country in a step by step manner.

Specifically, in June 2006, the USFJ deployed mobile radar for BMD at the ASDF Shariki sub base (Aomori Prefecture)[33]. Also, BMD capability equipped 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, a Joint Tactical Ground Station (JTAGS)[34] was deployed at Misawa Air Base in Aomori Prefecture.

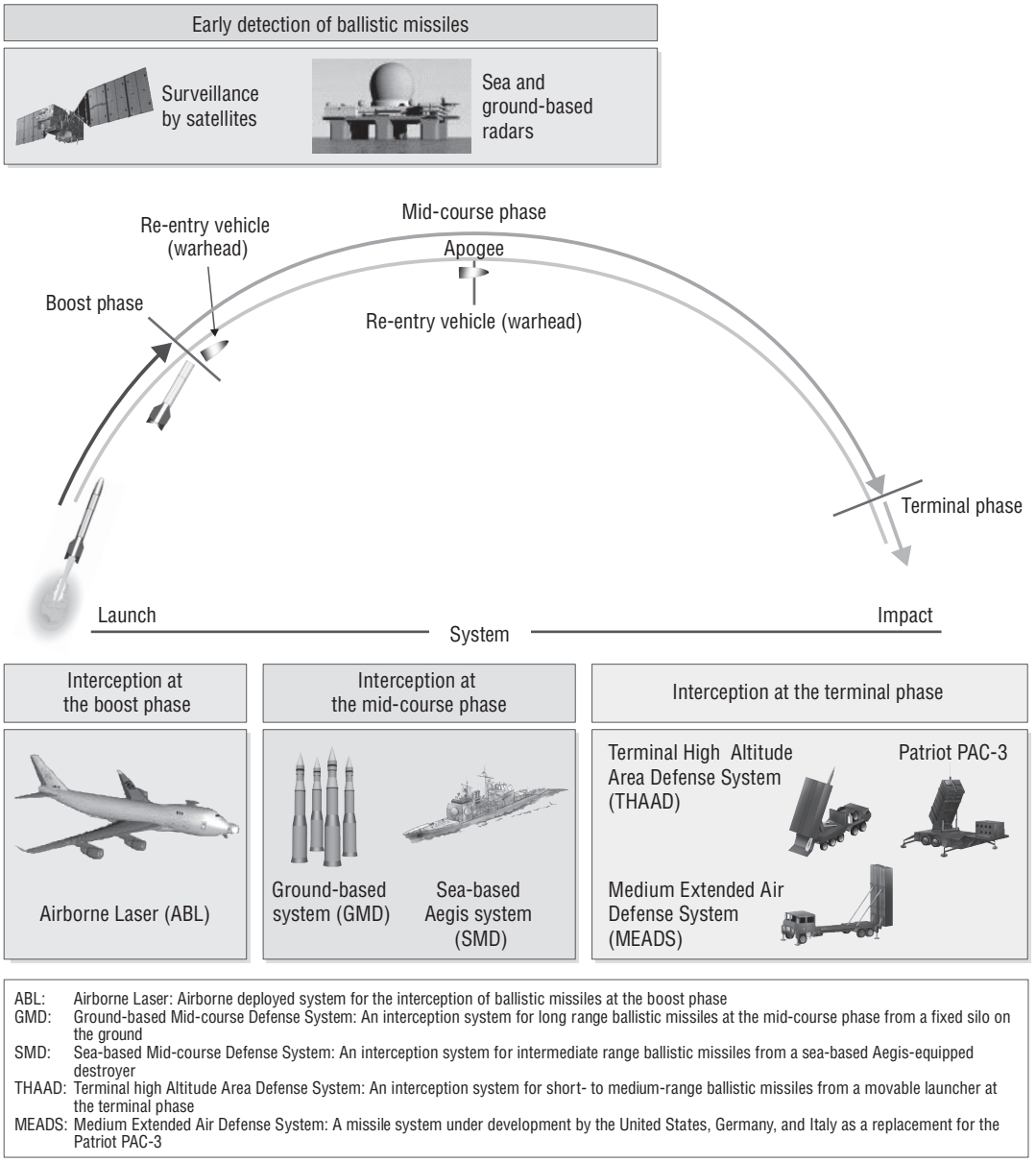
The development of a part of the U.S. missile defense system in our country will serve to secure the safety of the people of Japan.

(2) Japan–U.S. Joint Development of Improved Interceptor Missiles, etc.

In 1998, the government decided to commence Japan–U.S. joint cooperative research on a sea-based upper-tier system in FY1999.

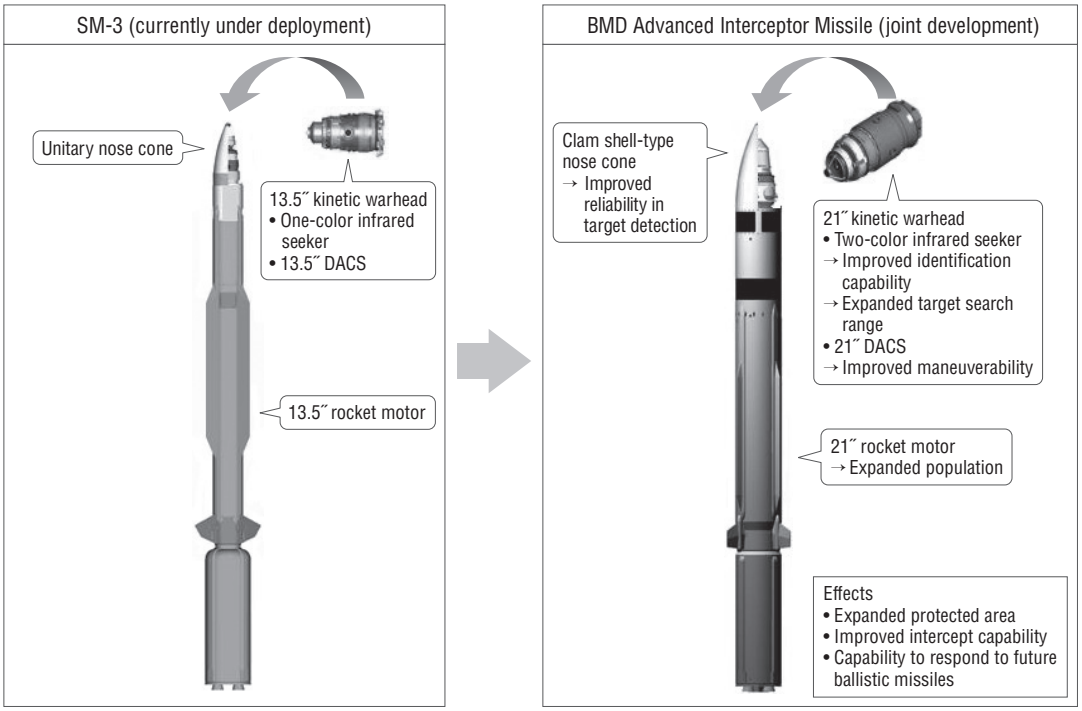
This cooperative research was not aimed for the BMD system that started to be deployed in FY2004. Rather, this Japan–U.S. joint technical research has been conducted bearing in mind improving the capabilities of interceptor missiles for the far future, and the design, prototype production and necessary testing of four major components[35] of the interceptor missiles were completed.

Fig. III-1-2-6 Example of U.S. Multi-layered Defense Concept Against Ballistic Missiles



ABL: Airborne Laser: Airborne deployed system for the interception of ballistic missiles at the boost phase
GMD: Ground-based Mid-course 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 Mid-course 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
MEADS: Medium Extended Air Defense System: A missile system under development by the United States, Germany, and Italy as a replacement for the Patriot PAC-3

Fig. III-1-2-7 Outline of the Japan–U.S. Joint Development of Advanced Interceptor Missiles for BMD



In December 2005, the Security Council and Cabinet made the decision to use those results as a technical foundation for the development of an improved interceptor missile because prospective solutions to issues faced at the time were gained as a result of the Japan–U.S. joint technical research, and joint development has been ongoing since June 2006. The commencement of joint Japan–U.S. development of Aegis BMD weapon system components is planned for FY2010 to add commander and operator support functionality and to improve system availability to the Aegis BMD combat system under development by the United States. For this reason, approximately 21.1 billion yen was appropriated for the joint development of the future BMD system in the budget for FY2010.
(See Fig. III-1-2-7) (See Reference 31)

(3) Relationship to the Three Principles on Arms Exports

Japan's BMD program consists of capability improvements to the Aegis destroyers and Patriot system possessed by Japan, and does not conflict with the Three Principles on Arms Exports.

On the other hand, with regard to the Japan–U.S. joint technical development, which is aimed for improved BMD capability for the future, it will be necessary to export arms concerned with BMD from Japan to the United States as part of development. In accordance with the Chief Cabinet Secretary's statement made in December 2004, it was determined, when the transition to joint development was decided in December 2005, that the Three Principles on Arms Exports would not apply under the condition that strict controls are maintained and a framework for the provision that arms required to be exported to the United States would be developed through coordination with the United States.

In June 2006, letters concerning the provision of arms and arms-related technology to the United States were exchanged, which established a framework to provide arms and arms-related technology under tight controls —for example, prohibiting use for other purposes and prohibiting the transfer to third countries without Japan's consent in advance.
(See Part II, Chapter 2, Section 2)

(4) Strengthening Japan–U.S. Cooperation on BMD

Since the decision was made to introduce BMD systems to Japan, efforts have been continuously made to strengthen Japan–U.S. BMD cooperation. Specifically, letters concerning BMD cooperation were exchanged between the Minister for Foreign Affairs and the U.S. Ambassador to Japan, and a Memorandum of Understanding (MOU) on BMD cooperation was signed between the Japan Defense Agency and the U.S. Department of Defense in 2004. Furthermore, in June 2006, the Minister for Foreign Affairs and the U.S. Ambassador to Japan exchanged a letter concerning BMD cooperation that included cooperation on Japan–U.S. joint development.

4. Response to North Korean Missile Launch

On March 12, 2009 (Japan time, the same shall apply hereinafter in this section), contact was received from the International Maritime Organization that it had received communication from North Korea of an intended test launch of a communications satellite.

As the actions of North Korea were in violation of U.N. Security Council Resolutions 1695 and 1718, the government requested that North Korea stop the launch, and further verified the response policy toward North Korean missile launches at the Security Council on March 27 of the same year.

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 bases in the Tohoku region (Iwate and Akita prefectures) and the Tokyo metropolitan area (Saitama and Chiba prefectures, and Tokyo) to prevent missiles landing in Japanese territory.


Right after a PAC-3 test launch

At 11:30 AM on April 5 of the same year, one missile was launched from North Korea toward the east and is calculated to have passed over the Tohoku region to the Pacific Ocean at approximately 11:37. The Ministry of Defense and the SDF swiftly communicated[36] information regarding this missile launch collected from Shared Early Warning and the various SDF radar units to the Prime Minister's Office. Further, aerial reconnaissance was carried out to verify whether any harm had been caused in the Tohoku region.

On April 6 of the same year, the Minister of Defense issued the order to terminate the "destruction measures against ballistic missiles" and recalled the units. On May 15, comprehensive and expert analysis carried out on the missile launched by North Korea was made public[37].

[COLUMN]

COMMENTARY

The Reliability and Effectiveness of Japan's Ballistic Missile Defense

Interest in the ballistic missile threat in Japan increased as a result of the North Korean missile launch incident in April 2009, but at the same time voices were raised regarding concern over the reliability and effectiveness of Japan's ballistic missile defense (BMD) system. Here we will explain the understanding of the Ministry of Defense regarding the reliability and effectiveness of the BMD system.

The BMD has the capability to destroy ballistic missiles by interceptor before they hit targets and is the only way to prevent the damage intended by the launching party. This capability has been made possible by great leaps forward in recent years in related technology such as the sensor technology required to detect and track a distant warhead traveling at extremely high speeds, the technology to analyze and transmit vast amounts of data at high speed, and the technology to accurately guide the interceptor to strike the warhead.

The proliferation of ballistic missiles capable of carrying weapons of mass destruction, such as nuclear warheads, is a shared concern of the international community. Both Japan and the United States now possess interception capability, and the nations of Europe and the Middle East are moving forward towards its adoption.

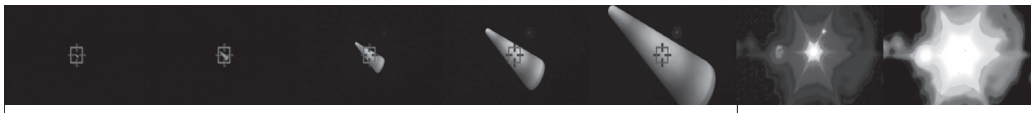
Japan takes the multi-tiered defense approach that the SM-3 Aegis destroyers, capable of protecting an area with a radius of several hundred kilometers, cover the whole region of Japan, and the Patriot PAC-3 systems, capable of protecting an area with a radius of tens of kilometers and suitable for base protection, cover relatively important spots. Both systems performed well in flight tests carried out by Japan, the United States, and other countries.

For instance, according to the public information of the U.S. Missile Defense Agency, 16 out of 20 SM-3 interceptors successfully hit their targets in the past tests. This result includes the flight tests carried out by Japan.

Regarding the Patriot PAC-3 systems, while all test results are not publicly available from the U.S. government at this time, ballistic missile mock ups were hit successfully in two flight tests carried out by the SDF in the United States (in September 2008 and September 2009). Further, according to the public announcement by the U.S. government, Patriot PAC-3 systems deployed in the field when the United States and its allies conducted an armed attack against Iraq in 2003 successfully hit all the ballistic missiles within their strike range.

Note: It should be noted, however, that the percentage of successful hits in flight test may not be a sole indicator, as in general the reliability of a state-of-the-art technology progresses through repeated tests.

In addition, the Ministry of Defense and SDF have been carrying out the development of an advanced SM-3 missile with improved interception capability, as well as strengthening information, surveillance and reconnaissance capabilities regarding precursors of launching ballistic missiles, and improving operational capabilities to deploy units more rapidly and to sustain a longer readiness posture.



Actual target images captured by the SM-3 infrared seeker

(An SM-3 test flight carried out by the Aegis destroyer *Myoko* in October 2009)

2. 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[38], and destructive actions by guerillas and special operations forces, which constitute a form of armed attacks on the territory of Japan.

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 to capture or destroy them. 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[39] 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 assembled in the area to besiege them, upon which they will be captured or destroyed.
(See Fig. III-1-2-8) (See Reference 31–32)

2. Response to Armed Agents

(1) Basic Concept

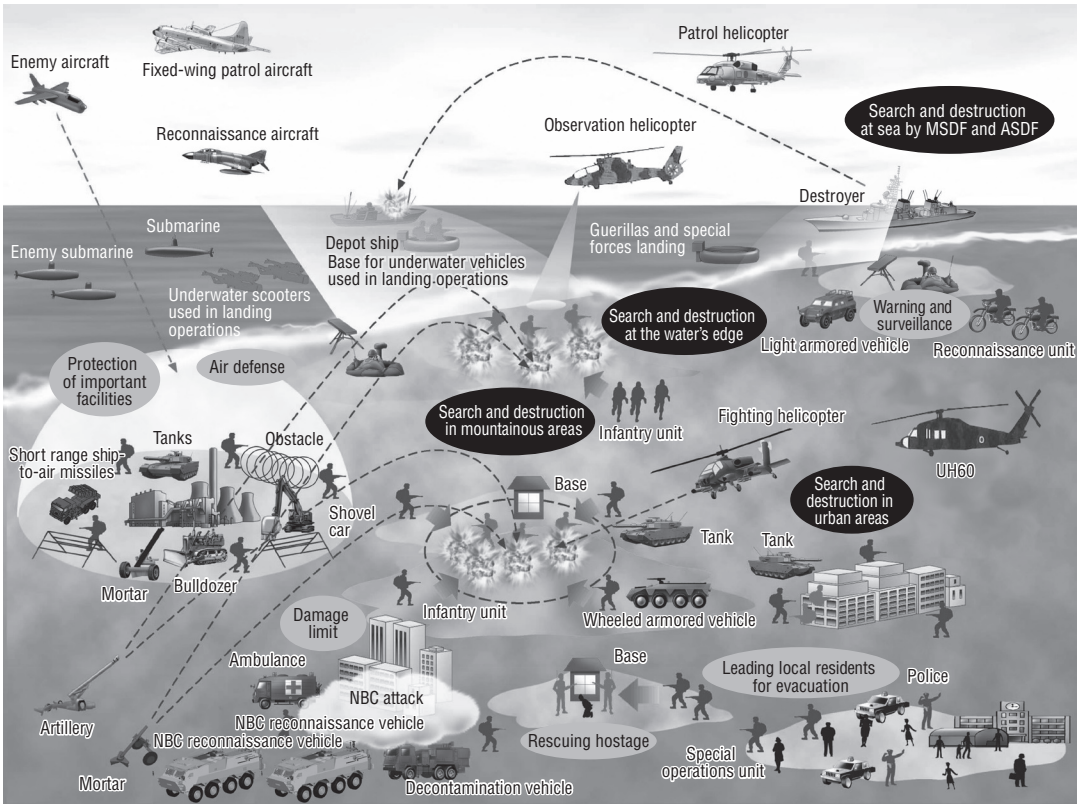
While the police assume primary responsibility for responding to illegal activities of armed agents, the SDF will respond in accordance with situational developments.
(See Fig. III-1-2-9) (See Reference 32–33)

(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[40]. In addition, local agreements were concluded in 2002 regarding public security operations between GSDF divisions/brigades and prefectural police forces.

Fig. III-1-2-8 Example of Operations for Coping with Guerillas and Special Forces



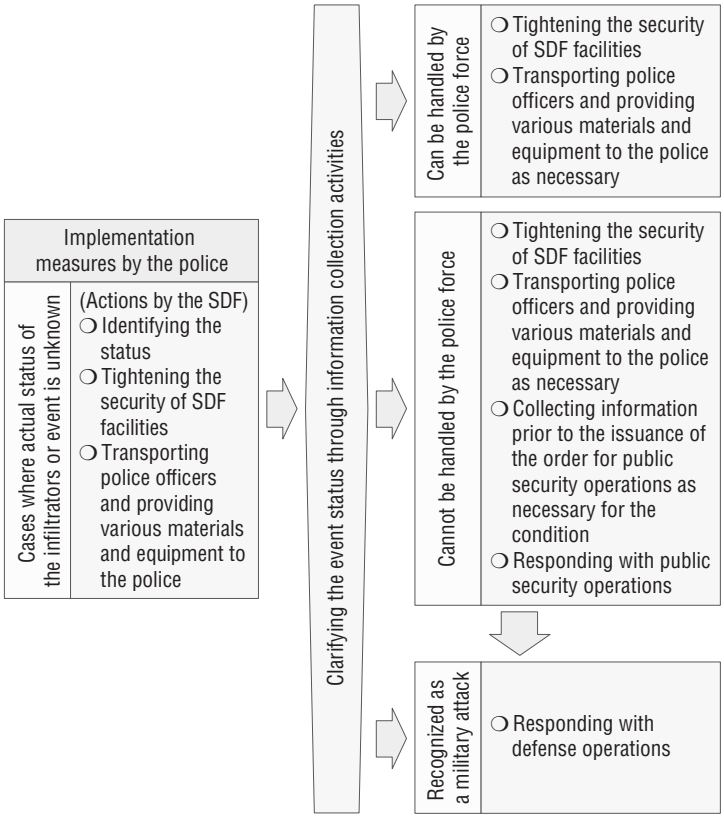
Furthermore, guidelines were jointly formulated with the National Police Agency in 2004 for dealing jointly with public security dispatches in the event of armed agent concerns.


SDF personnel supporting convoys together with police personnel during a joint exercise with the police

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 simulation 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 to confirm cooperation procedures in cases of security operations.

Fig. III-1-2-9 Basic Concept for Responding to Armed Agents



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) weapon 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[41] on the Tokyo subway in 1995 and the incidents of mail in the United States containing anthrax[42] 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 abate the armed attack and rescue victims under the category of defense operations. 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 SDF will conduct 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 led by the chemical protection units of the GSDF and medical units of the ASDF, GSDF, and MSDF.

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

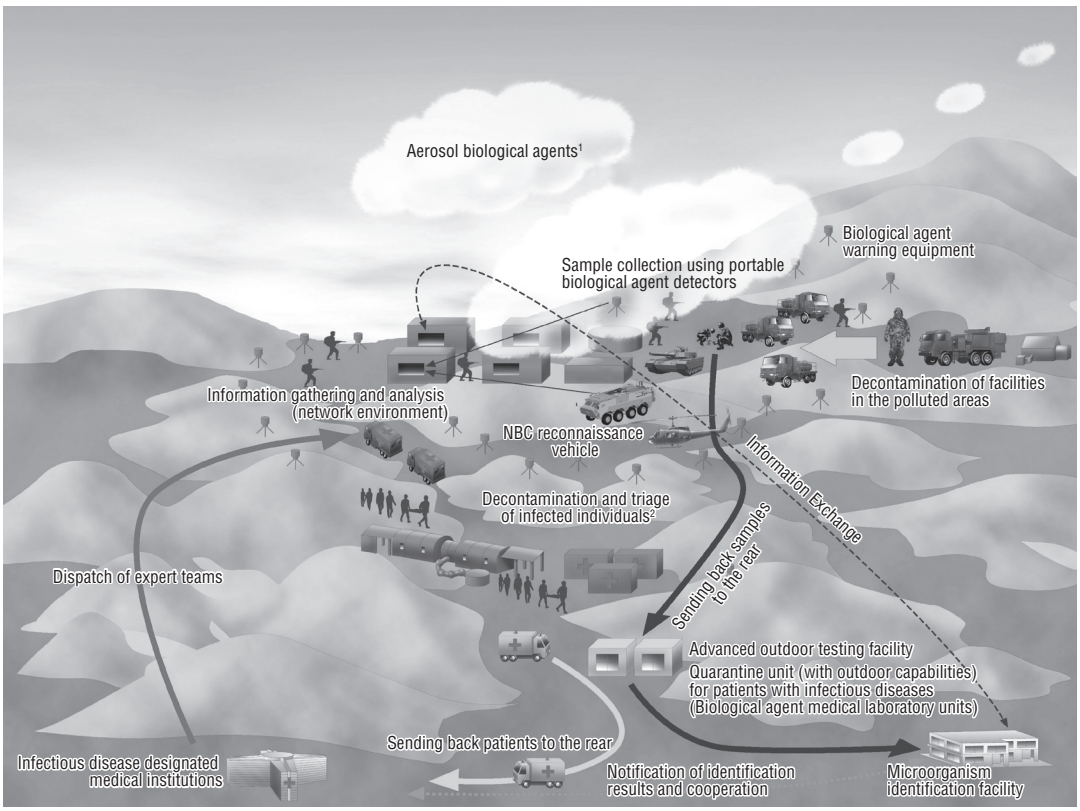
The Ministry of Defense and the SDF have improved the capability for responding to NBC weapon attacks. Specifically, the Central NBC Weapon Defense Unit was formed under the Central Readiness Force, and there has been an increase of chemical protection unit personnel, improvement of NBC reconnaissance vehicles, chemical surveillance devices, decontamination vehicles, personnel protection equipment, portable automatic biological sensors, chemical protection clothing and research and development for NBC warning devices and 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.

(3) Response to Substances Related to Nuclear and Radiation Weapons

Substances related to nuclear and radiation weapons have various effects on the health of those exposed to them even when this is not visibly apparent. Thus, appropriate protection and exposure control is required taking into consideration the characteristics of such substances.

In the event that a response to such substances is necessary, the SDF will coordinate with related organizations to conduct operations using protective masks and chemical protection vehicles, including the measurement of the contamination situation from radioactive materials and the transportation of the sick and injured.

Fig. III-1-2-10 Image of Future Response to Biological Weapons



Notes: 1. Aerosol: microscopic solid or liquid particles floating in the atmosphere.
2. Triage: determination of the medical treatment priority of victims.

(4) Response to Biological Weapons

Biological agents used to make biological weapons have certain incubation periods, and it is difficult to determine whether a disease is caused by biological agents based on the initial symptoms alone. For this reason, in the event that biological agents are dispersed secretly, anthropogenic causes may be suspected only after damage has occurred and spread. Thus, it is anticipated that detection before the damage has spread will be extremely difficult.


An exercise to handle terrorism using biological agents

Response in the event of an outbreak of such damage will be carried out primarily by medical institutions, the police, and fire departments. The SDF will be responsible mainly for detecting and identifying biological agents, decontamination, the transportation of patients, and medical activities.
(See Fig. III-1-2-10)


An exercise to handle terrorism using chemical agents

(5) Response to Chemical Weapons

Unlike biological agents, the outbreak of injury with chemical agents used to make chemical weapons is generally fast so a rapid initial response at the time of injury is exceedingly important.

Response using chemical protection clothing and vehicles is possible when handling chemical agents, and the chemical protection units and medical units of the GSDF will detect the chemical agents using detection devices, carry out identification and decontamination, the transportation and treatment of victims, and medical activities in the contaminated areas.

Even when the situation does not require handling by the SDF, the SDF will lend personnel protection equipment and dispatch chemical protection unit personnel as liaison officials to the relevant agencies.

3. Response to Aggression on Japan's Offshore Islands

According to the 2004 NDPG, the geographical features of Japan are considered vulnerable from a security perspective, due to narrow lands, long coastlines and many islands. In particular, invasion of these islands can be anticipated as one form of armed attack against Japan.

In order to respond to aggression on islands, it is important to detect signs at an early stage through activities routinely conducted by the SDF including patrols and intelligence gathering. Response to this aggression has many points in common with ground defense strategy, but if signs of aggressions 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


An air cushion landing craft carrying a tank

islands are occupied, operations will be conducted to defeat the enemy. These operations will enable the SDF to swiftly concentrate troops to prevent and destroy enemy forces through the mobile transportation and deployment of forces through joint operations.

4. Warning and Surveillance of the Sea and Airspace Surrounding Japan and Response to Violation of Airspace and Armed Special Operations Vessels

In order for the SDF to respond swiftly to not only a full-scale invasion situation but also new threats and diverse contingencies, it is extremely important to routinely conduct warning and surveillance activities in Japan's territorial waters and airspace as well as engage in intelligence gathering and processing.

For this purpose, the SDF is engaged in various activities directly linked to ensuring the peace and security of Japan.

1. Warning and Surveillance in Sea Areas Surrounding Japan

A P-3C patrol aircraft carrying out surveillance operations.

The MSDF patrols the sea areas surrounding Hokkaido, the Sea of Japan, and the East China Sea about once a day, using P-3C patrol aircraft. Furthermore, warning and surveillance activities are conducted with the flexible use of destroyers and aircraft as required, such as for surveillance of a possible missile launch. Thus, a state of readiness is maintained for responding quickly to situations in areas surrounding Japan. As an additional measure, GSDF coastal surveillance units and MSDF security posts conduct 24-hour warning and surveillance activities in the major sea straits.

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. Furthermore, some fighters are always kept on standby for immediate takeoff (scramble). When any aircraft suspected of violating Japan's territorial airspace are detected, scrambled fighters will 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 FY2009, there were 299 scrambles by the ASDF[43].

(See Fig. III-1-2-11, 12) (See Reference 32–33)

3. Response to Submarines Submerged in Japan's Territorial Waters

With respect to foreign national submarines navigating underwater in Japan's territorial waters[44], an order for maritime security operations[45] will be issued promptly. The submarine will 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 Reference 32–33)

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.

Fig. III-1-2-11 Number of Scrambles in the Last Decade and its Breadown

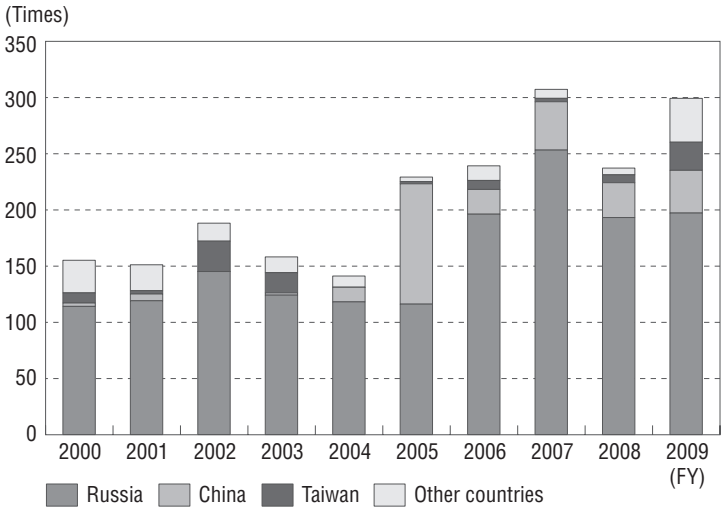
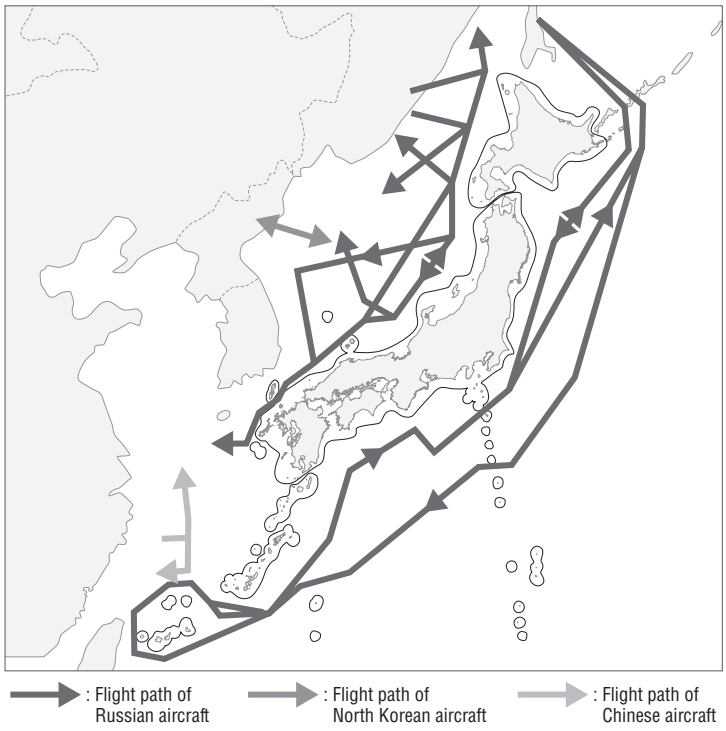


Fig. III-1-2-12 Example of Flight Patterns of Russian, Chinese, and North Korean Aircraft Against Which Scrambles Were Directed



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 in cooperation with the Japan Coast Guard.
(See Reference 32–33)

Taking into consideration lessons learned and reflecting on the unidentified vessel incident off the Noto Peninsula in 1999[46] and the unidentified vessel incident in southwest Kyushu in 2001[47], the government has taken all necessary precautionary measures in order for effective and safe measures to be taken against unidentified vessels, while the Ministry of Defense and the SDF have strengthened cooperation with relevant ministries and agencies.

(2) Ministry of Defense and SDF Efforts to Respond to Unidentified Vessels

a. Enhancement of Equipment

The MSDF is taking the following steps: 1) deployment of missile boats with improved capability[48]; 2) establishment of the MSDF Special Boarding Unit[49]; 3) equipment of destroyers with machine guns; 4) furnishing forcible maritime interdiction equipment (flat-nose shells)[50]; 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 (then) 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 for pursuit and capture guidelines for unidentified vessels and communications, etc., in order to strengthen cooperation.

5. Response to Large-Scale and Unconventional Disasters

The SDF conducts a variety of operations when disasters such as natural disasters occur including search and rescue for disaster victims and ships or aircraft in distress, flood control, medical treatment, prevention of epidemics, water supply and transportation of personnel and goods. The SDF currently plays a major role in diverse contingencies.

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[51]. 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 fire fighting.

Municipal mayors can ask 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.

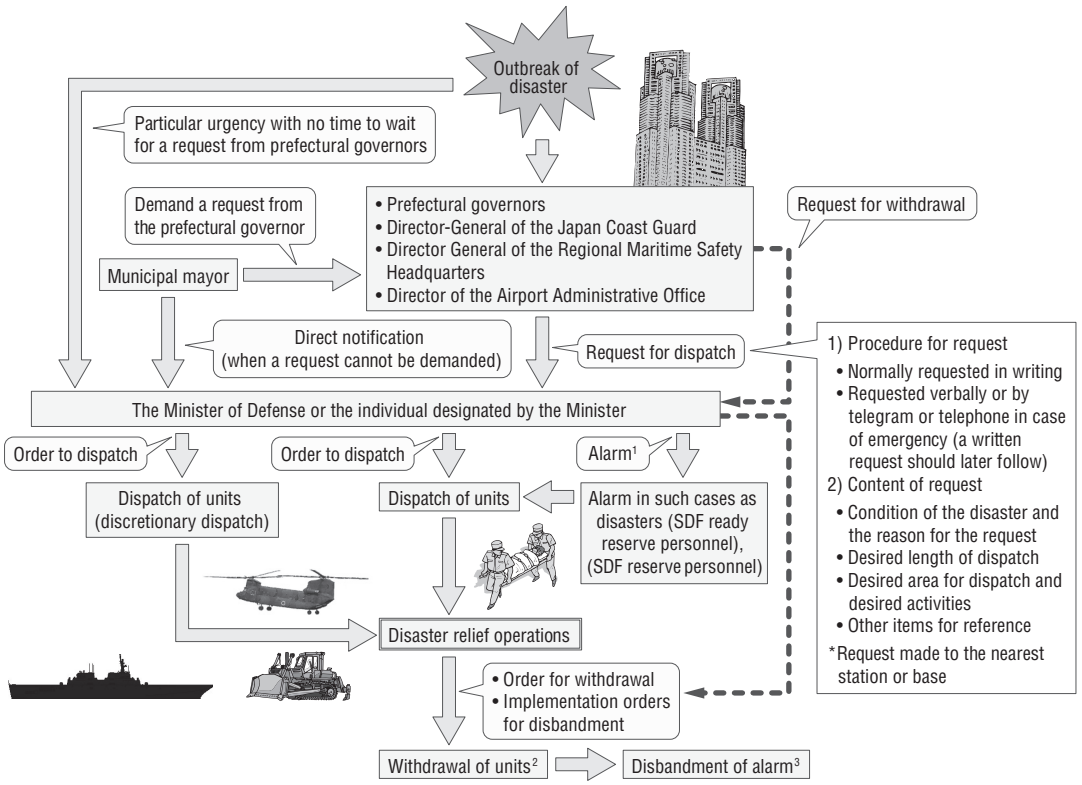
After receiving such requests from governors, the Minister of Defense or other personnel designated by the Minister can immediately dispatch units as necessary according to the disaster situation.

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[52] was amended in 1995 to establish the basis[53] for SDF unit commanders and other officials to order discretionary dispatches. Procedures from the request for SDF disaster dispatch up to its withdrawal are shown in Fig. III-1-2-13.

b. Earthquake Disaster Prevention Dispatch

When an alert[54] is issued based on the Law Concerning Special Measures for Large-Scale Earthquakes Countermeasures[55], the Minister of Defense is authorized to order an earthquake disaster prevention 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-1-2-13 Flow of Events from the Point of Request to Dispatch and Withdrawal



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

c. Nuclear Disaster Dispatch

When a nuclear emergency alert is issued based on the Special Law on Nuclear Disaster Countermeasures[56], 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 32)

2. Initial Operations Posture and Implementation Status of Disaster Relief Dispatches

(1) Initial Response to Disasters

Based on lessons learned from the Great Hanshin-Awaji Earthquake disaster, the SDF maintains a posture for initial response to ensure disaster relief operations are conducted promptly. The GSDF maintains a state of readiness in 157 bases and stations placed throughout the nation and has designated personnel, vehicles, and helicopters (including video broadcast helicopters) as well as units for unexploded bomb disposal and chemical protection as initial response units to be ready to move within a target standard of one hour. The MSDF has vessels designated for emergency dispatch at each base in addition to aircraft on standby alert, and the ASDF is prepared with its rescue and transportation aircraft on standby alert.

In the event that information is received of the occurrence of a strong earthquake greater than level 5 on the Japanese seismic scale, the SDF will swiftly dispatch aircraft in its discretion to gather site information and is in the position to transmit this information to the Prime Minister's Office. Also, depending on the circumstances, liaison officers will be dispatched to the concerned local public authorities for information gathering purposes.

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 of massive humanitarian and material damages in addition to damage to the central political, government, and financial functions of the capital, the Contingency Plan for Tokyo inland earthquakes stipulates that each Self-Defense Force shall systematically cooperate to respond in an organized manner. The GSDF shall send up to 110,000 personnel to disaster-stricken areas, the MSDF shall dispatch up to 60 ships and about 50 aircraft, while the ASDF shall operate about 70 aircraft, including reconnaissance, rescue and transportation planes.

Further, a variety of efforts including exercises will be carried out as part of regular operations to improve the effectiveness of such plans.

(See Fig. III-1-2-14, 15)

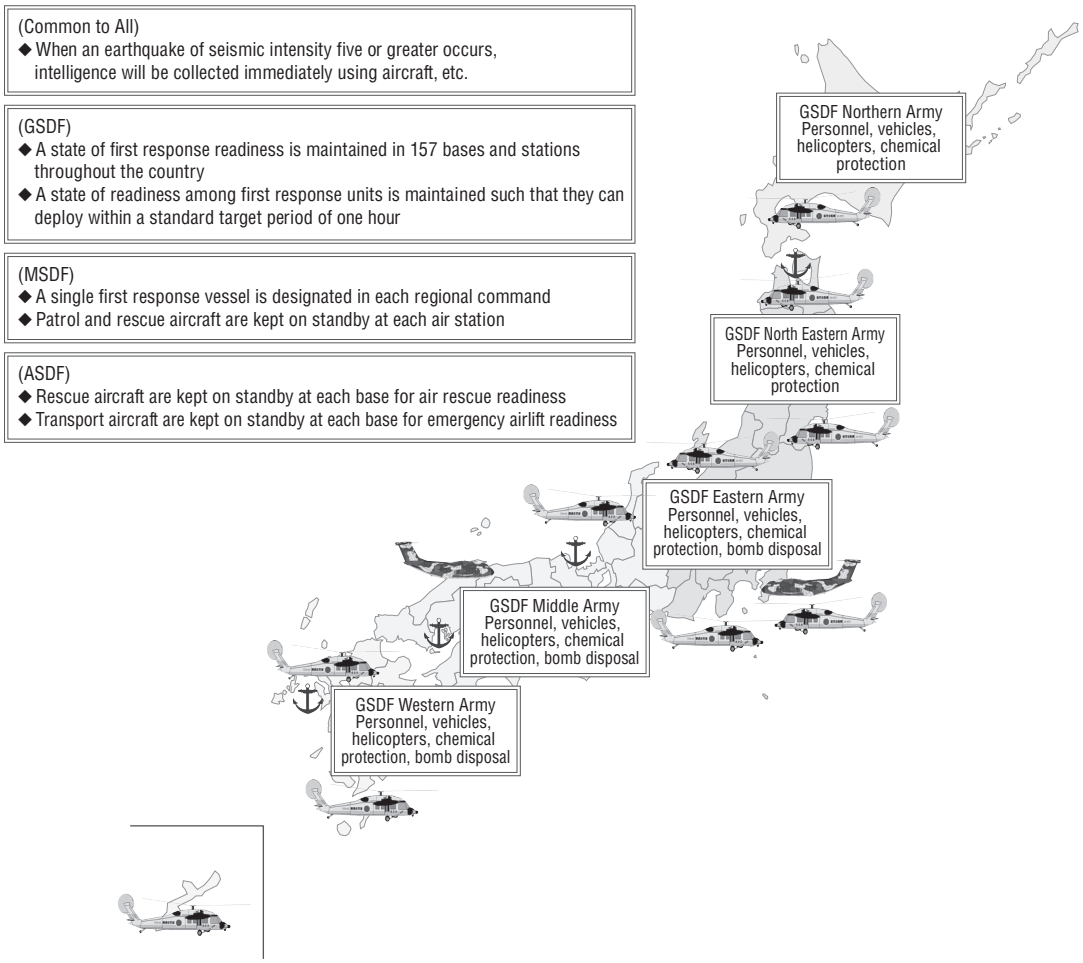
(2) Implementation Status of Disaster Dispatches

a. 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 FY2009, out of a total of 559 cases of disaster relief operations, 353 cases involved the transportation of emergency patients with as many as 340 cases being dispatches to such isolated islands as the Nansei Islands (Okinawa and Kagoshima Prefectures), the Goto Islands (Nagasaki Prefecture), the Izu Islands, and the Ogasawara Islands representing a majority of 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.

Fig. III-1-2-14 State of Readiness for Disaster Dispatches (Standard)



b. Firefighting Support

In FY2009, there were 86 dispatches of firefighting support, the second largest number of dispatches after transportation of emergency patients. Within this category, response to fires in areas nearby SDF facilities were the highest in number, with 73 cases in FY2009. 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-1-2-16) (See Reference 34)

c. Response to Natural Disasters

In July 2009, heavy rain hit western Japan due to the increased activity of the rainy season front, and cases of people becoming missing or isolated occurred. For this reason, requests for disaster dispatch were made by the Governor of Yamaguchi Prefecture to the commander of the 17th Infantry Regiment on the 21st of July, by the Governor of Fukuoka prefecture to the commander of the 4th Division on the 24th of July, and by the Governor of Nagasaki Prefecture to the commander of the 16th Infantry Regiment on July 27. In the Katsusaka

Fig. III-1-2-15 Response to a Direct Earthquake the Capital (Example)

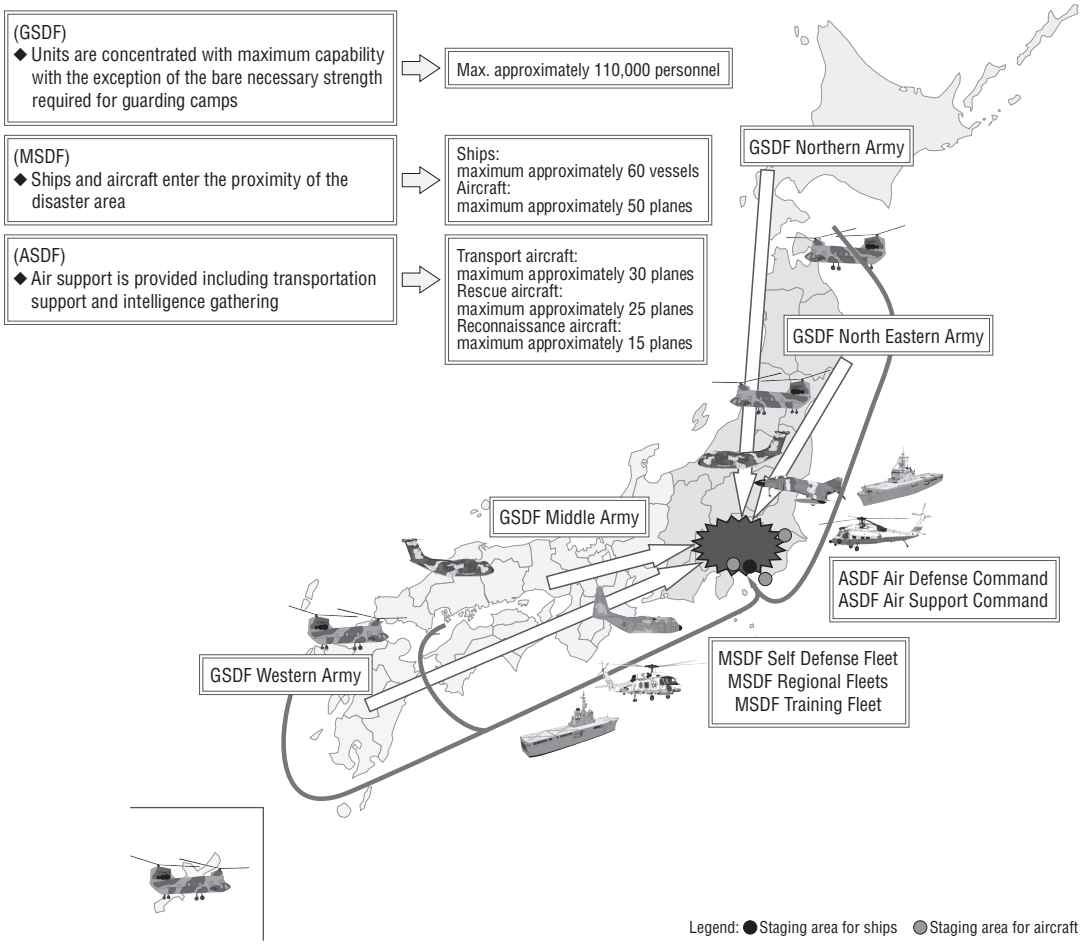


Fig. III-1-2-16 Record of Disaster Relief Dispatches (FY2009)

Description	Number of dispatches	Personnel	Vehicles	Aircraft	Vessels
Responses to storm, flood, and earthquake disasters	11	12,684	1,958	16	19
Transporting emergency patients	353	1,809	9	386	0
Search and rescue	48	11,548	1,001	216	93
Assisting firefighting	86	4,965	642	147	1
Other	61	2,694	299	120	13
Total	559	33,700	3,909	885	126

Pass, Ishihara, and Manao in Hofu City, Yamaguchi Prefecture, a major landslide occurred causing many people to be isolated or become missing. Therefore, after processing the request for disaster dispatch from the prefecture, the conditions of the affected area were confirmed by helicopter and liaison personnel were dispatched to the prefectural government and Hofu city hall in order to properly meet the needs of the affected area. Further, isolated people were rescued from a special nursing home located in Manao and the injured there were transported by helicopter along with the doctors to neighboring hospitals.


SDF personnel conducting fire extinguishing activities during a disaster dispatch for a forest fire

In Yamaguchi City, water supply was interrupted over a wide area due to heavy rain, and many people were forced to stay in evacuation areas, disrupting their daily lives. For this reason, SDF water supply trucks and outdoor bathing kits were brought to elementary schools and hospitals from outside the prefecture to carry out water supply and bathing support. As a major mudslide also occurred in Chikushi District in Fukuoka prefecture due to the heavy rain isolating approximately 110 citizens, these people were transported by aircraft to a nearby middle school. Further, in Sasebo city, Nagasaki Prefecture, water supply pipes were broken by a landslide stopping water supply to 15,000 homes. SDF ships able to transport vast clean water supplies were brought to

[COLUMN]

VOICE

The Exhausting Efforts of Related Organizations During the Severe Rain in Hofu City, July 21, 2009

Hofu City Fire Department, Assistant Chief, Ichiro Aoki

On July 21, 2009, heavy rain due to the rainy season front fell continuously from early morning, reaching a total of over 220 mm by noon, and leading to landslides on a scale not seen before which took the lives of 14 people.

With cooperation from the SDF and police, search and rescue activities and evacuations via relay transport were carried out. Injured persons who could not be moved were rescued by the 13th Squadron of the GSDF.

Despite the exhaustive efforts of these organizations, nine individuals remained missing, and a major search and rescue operation was carried out on July 22 between the SDF, police, and fire department.

The effort lasted until July 28, during which precautions had to be taken against secondary disasters at the various affected areas due to the soft ground and poor weather. However, the deployment of over 1,100 SDF personnel gave us strength and enhanced morale allowing us to complete the operation, and for this I am extremely grateful.


Rescue activities using a UH-1J

SDF personnel conducting rescue activities during a disaster dispatch for the torrential rains in Chugoku and northern Kyushu regions

SDF personnel searching for missing persons

Ainoura port, and the water was offloaded to water supply trucks for water supply operations to 19 locations including municipal elementary schools and community centers.

After the operations were completed, a letter of gratitude was delivered to the SDF by the governor of Yamaguchi Prefecture in August of the same year. The total deployment for these disaster dispatches reached 9,690 personnel, 1,620 vehicles, 16 aircraft, and 19 ships.

[COLUMN]

VOICE

Cooperation with Police and Fire Departments during the "July 2009 Disaster Dispatch for Heavy Rain in the Chugoku and North Kyushu Regions"

Yasufumi Nagao, Assistant Chief, Civil Disturbance Unit, Anti Riot Squad,
Yamaguchi Prefectural Police Department at the time of the disaster
(Currently Guard Measures Officer and Assistant Director, Guard Measures Section,
Police Division, Yamaguchi Prefectural Police Headquarters)

The heavy rains of July 2009 in the Chugoku and North Kyushu regions caused severe damages in the prefecture including the loss of 22 lives. We were engaged in rescue operations together with personnel from the GSDF 17th Infantry Regiment and the fire department. We were greatly encouraged by the sight of the troops involved in rescue operations, who were soaked up to their chests in muddy water and were pushed on by their sense of duty to rescue the victims despite the danger of secondary disasters occurring as the rain continued to fall. I hope to continue to work hard in operations with shared goals together with the related organizations in the future.

In front of a map of the prefecture

SDF personnel searching for a vehicle caught in a landslide

SDF personnel conducting rescue activities during a disaster dispatch in Hofu City

SDF personnel working to prevent the spread of foot and mouth disease

In August 2009, cases of people being isolated or missing occurred in Hyogo and Okayama Prefectures due to the heavy rain from Typhoon 9. Subsequently, requests for disaster dispatch were made by the governor of Hyogo Prefecture to the commander of the 3rd Artillery Unit and by the governor of Okayama Prefecture to the 13th Artillery Unit on August 9. In response, search and rescue operations were carried out for people missing due to a landslide in Sayocho, Shiso City, Hyogo Prefecture. Further, water supply was interrupted there and in Mimasaka City, Okayama Prefecture due to the heavy rain, affecting the daily lives of the citizens, and water supply support was carried out. A letter of gratitude was sent in December of the same year after the completion of operations by the governor of Hyogo Prefecture regarding the SDF operations. As a result of carrying out these support operations, the total scale of the deployment reached 2,990 personnel and 330 vehicles.

In another case, in February 2010, tsunami warnings were issued over a huge region along the Pacific coast from Hokkaido to Okinawa due to the danger of a tsunami arriving from the earthquake that occurred on the coast of central Chile. In response, aircraft of the Ground, Maritime, and Air Self-Defense Forces were used from across the nation to confirm whether any damage occurred due to a tsunami, while the same confirmation was also made from land in the Tohoku region. Further, in order to strengthen cooperation with related municipalities, liaison personnel were dispatched to 20 prefectures including the prefectural governments of Aomori, Iwate, and Miyagi Prefectures, and 40 cities including the cities of Kesennuma, Ishinomaki, and Kamogawa. In addition, ground forces were deployed beforehand to various parts of the Tohoku region in order to cope promptly with the damage caused by the tsunami. The scale of this deployment reached 1,020 personnel, 200 vehicles, and 77 aircraft.

An outbreak of foot and mouth disease occurred in April 2010 in Miyazaki Prefecture affecting livestock such as cows and pigs. As a result of the spread of the disease, a request for disaster dispatch was made by the governor of Miyazaki Prefecture to the commander of the 43rd Infantry Regiment on May 1 of the same year. Because emergency measures were required to prevent further outbreaks, for approximately three months (88 days) from May 1 to July 27, the scale of the dispatch was gradually increased, while sterilization operations were carried out on livestock burial grounds and warehouses for cleanup (total of 138 locations) and 24 hour a day vehicle disinfection operations were carried out at sterilizing points (total of 15 locations).

The activities managed by the SDF in these operations were highly regarded by many, including the governor of Miyazaki Prefecture and other leaders of cities and towns concerned. The scale of the disaster dispatch in handling this outbreak of foot and mouth reached to approximately 18,720 personnel and approximately 4,140 vehicles (including facilities' vehicles and so on).

3. Efforts for Preparation for Disaster Relief

(1) Efforts in Preparation for Disaster Relief

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

In particular, a Ministry of Defense Comprehensive Disaster Prevention Exercise was carried out during the disaster prevention week of August 30 through September 5, 2009 so that disaster dispatch could be carried out swiftly and effectively in times of disaster due to major earthquakes. Specifically, this included 1) participation in the "Disaster Prevention Day" government headquarters management exercise (exercise for responding to a direct earthquake in the capital), 2) an independent Ministry of Defense disaster operations headquarters management exercise, 3) SDF comprehensive disaster prevention training coordinated with an eight city and prefecture joint disaster prevention exercise, 4) an exercise coordinated with Shizuoka Prefecture's comprehensive disaster prevention exercise, and 5) participation in comprehensive disaster prevention exercises carried out by related local governments.

[COLUMN]

VOICE

A message from the Governor of Kanagawa Prefecture

Shigefumi Matsuzawa, Governor of Kanagawa

As the head of a local government, who bears the responsibility for the safety and security of the prefectural citizens, I would like to express the deepest gratitude to the members of the Self-Defense Forces who are working hard for the maintenance of the security and peace of our nation every day, and I would also like to express my heartfelt respect for their energetic performance of the diverse and challenging missions including contribution to the international society in terms of peacekeeping operations and disaster dispatches.

In Kanagawa Prefecture, it has long been said that the Tokai earthquake and the West Kanagawa earthquake are soon to occur, and there is also concern regarding the possible occurrence of an earthquake directly under the capital. For this reason, earthquake disaster prevention measures are ranked as one of the most important issues for the prefectural government. "Disaster reduction goals" have been stipulated to reduce damages from earthquakes, and a Kanagawa Prefecture earthquake disaster prevention strategy is being prepared to achieve them. Coordination with the SDF is essential to promote these earthquake disaster prevention measures.

As is clear from the disaster dispatch operations for the Iwate-Miyagi Inland earthquake and the earthquake originating on the northern shore of Iwate Prefecture both occurring in the 2008, the role of the SDF will be vital in reducing damages to the greatest extent possible and achieving swift recovery in the event that a major earthquake or other emergency situation occurs.

I intend to work toward the further development of Kanagawa Prefecture so that its 9 million citizens can live in safety and security through continued close coordination with the SDF.

(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.


A UH-1 replenishing its water supply for fire extinguishing activities

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 and Hyogo Prefecture. Further, 3) in response to requests from local governments, retired SDF officers with knowledge in disaster prevention are being endorsed. As of the end of May 2010, the total number of retired SDF officers working in disaster prevention in local governments are 180 individuals in 44 prefectures and 103 municipalities throughout the country.

Personnel related cooperation with local governments using the knowledge of SDF personnel is a very effective method to improve cooperation with those governments.
(See Reference 35)

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.

a. Securing Staging Areas and Heliports

In order for units to carry out operations, space is required for the headquarters on the ground and for lodging, parking, and the staging of material (the staging area)[57]. Further, as it is possible that vehicle operations become limited during disasters, a heliport[58] is required near the affected area for transporting the emergency patients and materials and fighting fires using helicopters. Relations with municipalities are being strengthened on a daily basis through such means as promoting the addition of the securing of such staging areas and heliports to regional disaster prevention plans. Further, it is necessary to clearly delineate staging areas and heliports from evacuation areas on a regular basis and inform the local populace. Research into these points is currently being considered for the future.

b. Marking Building Numbers

In order to efficiently carry out operations such as the gathering of intelligence and the transportation of people and materials by aircraft, it is useful to mark numbers on the rooftops of facilities such as prefectural offices and schools to identify buildings important for disaster prevention,.

c. Securing Facilities for Liaison and Coordination

In order for SDF liaison personnel to carry out liaison and coordination smoothly during disaster dispatches, it is necessary to secure an area, parking lot, etc., in the buildings of the local municipality for the liaison personnel to carry out their operations and communications.

Currently, through cooperation with each local municipality, 13 cities and prefectures are moving toward taking the necessary measures to clarify the securing of facilities for SDF liaison and coordination in their regional disaster prevention plans.

d. Arrangements for Materials and Equipment

It is important to prepare a disaster prevention map which indicates the location of evacuation areas, heliports, etc., so that they can be used by all disaster prevention organizations. Furthermore, the maintenance of firefighting equipment for aerial firefighting by helicopter and the securing of water resources such as reservoirs is required, and each municipality is moving forward with the preparation of these measures.

(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[59] for various types of disasters

[COLUMN]

VOICE

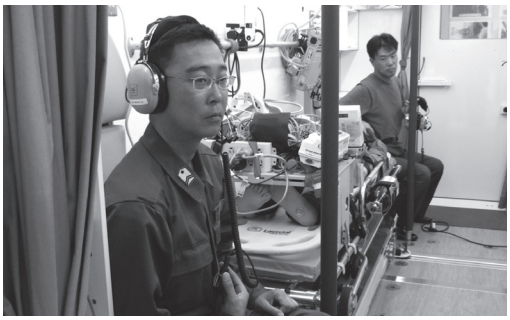
Voice of the Aero Medical Evacuation Squadron (ASDF Personnel)

Technical Sergeant Kazuyuki Fujii, Aero Medical Evacuation Squadron

I work as an emergency medical technician in the Aero Medical Evacuation Squadron's medical team. The Aero Medical Evacuation Squadron is outfitted with the world's cutting edge medical container for patient transport, a medical evacuation unit capable of being carried on the C-130H transport, able to transport severely injured patients to medical facilities far away while providing medical care onboard when necessary. In other words, it is like an onboard intensive care unit (ICU). Since the squadron's inauguration at ASDF Komaki Airbase in October 2006, we have been training daily in preparation for deployment.

In the disaster prevention training the other day that envisioned a Tokyo inland earthquake we carried out the complete process, applying the required care before takeoff and then airlifting the patient to a region with an advanced medical facility while monitoring their condition in flight.

While it is best that a situation that requires our deployment never occur, if we are deployed, we will use all of our knowledge and technology in combination with the evacuation capability of the aircraft to carry out the airlift to the best of our abilities.



Technical Sergeant Fuji training in the medical evacuation unit (left)

The medical evacuation unit onboard a C-130H

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[60].

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. Further, the Mid-Term Defense Program states that in addition to nuclear disasters, capabilities for responding to NBC will be strengthened in order to deal with other special disasters[61].

6. 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).


SDF personnel coordinating with the U.S. military during a guarding operation exercise

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[62]. 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 Reference 32–33)

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 Weapons to Guard SDF Facilities in Normal Circumstances

The authority for use of weapons in the course of guarding SDF facilities[63] within Japan has been stipulated[64].

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 the 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[65] personnel, the MSDF designating transport ships and air units, and the ASDF designating airlift units and personnel.

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

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, Section3-2)

4. Responses to "New-Type Flu"

SDF personnel supporting quarantine operations for the new-type flu at the airport

Based on the government's revised action plan for countermeasures against the new-type flu[66], in March 2009, the Ministry of Defense and the SDF prepared an MOD Contingency Plan for countermeasures against the new-type flu[67] with the goal of expressing the policy for the necessary stance and measures needed for swiftly and effectively carrying out new-type flu countermeasures.

As its basic policies, this plan stipulates 1) that the Ministry of Defense and the SDF collaborate and cooperate closely with related organizations under normal circumstances, 2) that in the case of an outbreak of the new-type flu, they will carry out their duties flawlessly, and 3) carry out the new-type 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[68], 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" so that functions can be maintained and necessary operations continued without interruption in the case of an outbreak of the new-type flu.

Note that the Ministry of Defense and SDF deployed approximately 1,260 personnel from the National Defense Medical College and medical officers from the SDF to quarantine stations at the airports in Narita, Kansai, and Chubu at the request of the Ministry of Health, Labour and Welfare from April through June of the same year and carried out quarantine support as a measure against the new-type flu (A/H1N1).

5. Military Intelligence Collection

In order for the effective operation of defense capabilities to deal with new threats and 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[69]; 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[70]. 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 above-mentioned intelligence capabilities.