

Part 2: Maritime Traffic Safety

1. Achieving a Society with No Maritime Accidents

- Preventing the occurrence of maritime accidents.
- Promoting prompt and appropriate search, rescue, and emergency services system for passengers.



2. Objectives Set in Maritime Traffic Safety

- 1) To reduce the number of marine vessels accidents occurring in Japan (excluding those by foreign vessels not calling at Japan) by approximately 10% (or below 2,220 vessels) by 2015, in comparison to the annual average of the Eighth Program period (2,473 vessels).
- 2) To prevent the occurrence of large-scale maritime accidents in the "congested waters," which cause significant social impact, such as large number of casualties or routes obstruction, and bring the number of the occurrence of those accidents to zero.



3. Measures for the Maritime Traffic Safety

<Two viewpoints>

- 1) Promoting various measures continuously to prevent maritime accidents
- 2) Improving and enhancing the systems for prompt lifesaving



<Ten pillars>

- 1) Improving the maritime traffic environment
- 2) Disseminating knowledge on maritime safety
- 3) Securing safe vessel navigation
- 4) Ensuring vessel safety
- 5) Enhancing safety measures for small vessels
- 6) Enforcing laws in maritime traffic
- 7) Enhancing rescue and emergency services systems
- 8) Promoting victim support
- 9) Identifying the causes and preventing the recurrence of ship accidents
- 10) Enhancing R&D and study activities

Section 1: Achieving a Society with No Maritime Accidents

Although the maritime transportation has become essential in supporting Japan's Economy, Trade and Industry, as well as the life of the people, the vessel traffic is often congested, particularly in Tokyo Bay which has become the hub of economic activities, while fishing and marine leisure are also active.

Under such circumstances, if a maritime accident occurs, there is not only high risk of a loss of human lives, but also it is likely to have an immeasurable impact on Japan's economic activities and natural environment. Therefore, from the perspective of ensuring the safety of the entire maritime traffic, with the collaboration and cooperation of all parties concerned, it is necessary to promote comprehensive and systematic safety measures, encompassing both intangible and tangible sides. In addition, while placing the top priority on preventing the occurrence of maritime accidents, we should, in the event of an accident, carry out search and rescue operations promptly and properly to save the lives of people on board.

I. Current Status of Maritime Accidents

The annual average of the number of vessel accidents from 2006 to 2010 is 2,497 vessels, has declined by 7.5% compared to five years earlier.

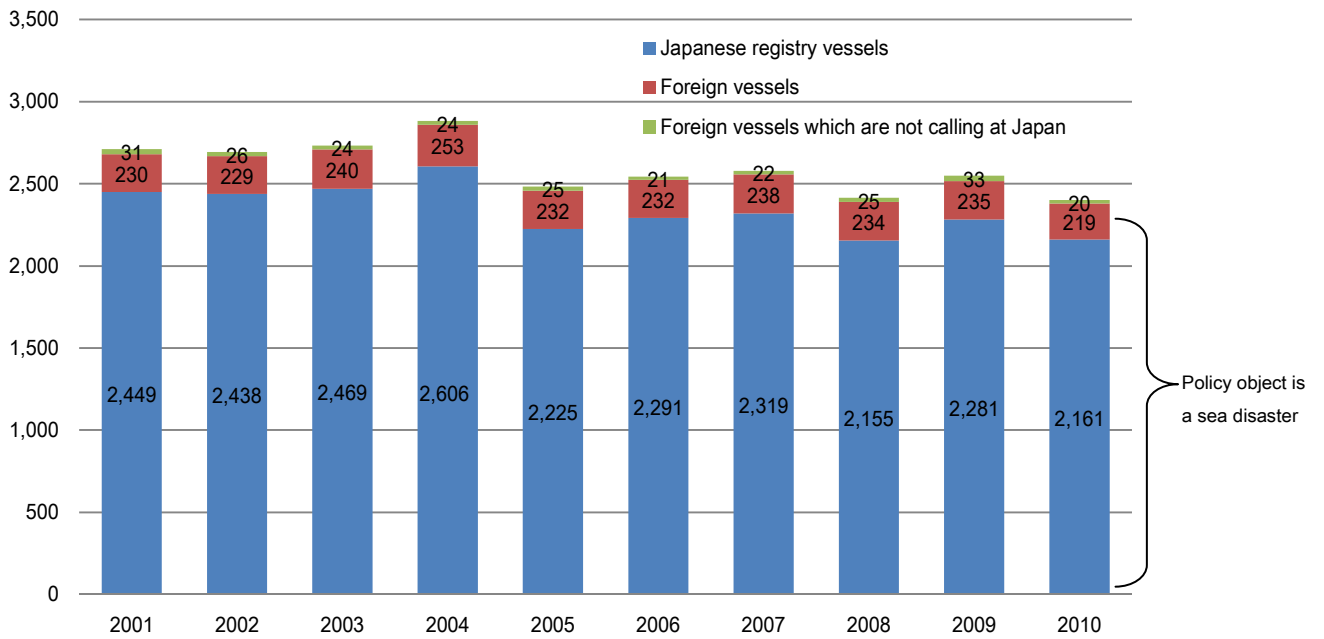
Considering the waters of the occurrence of the accidents, those that occur in coastal waters (harbor and up to 20 sea miles within coastal area) account for more than 90% of the total, those in congested waters (Tokyo Bay, Ise Bay, Seto Inland Sea and harbor barrier) account for about 40% of the total accidents. Considering the types of vessels, small boats (fishing boats, pleasure boats) accounted for 70% of the total accidents, in particular, the number of pleasure boat accidents, has shown an increasing tendency from 852 vessels in 2006 to 963 vessels in 2010.

In addition, the annual average number of merchant vessels accidents, (tankers, cargo ships, and passenger ships) being 506 vessels for the period from 2006 to 2010, has declined by 5.6%, compared to five years earlier (average of 536 vessels).

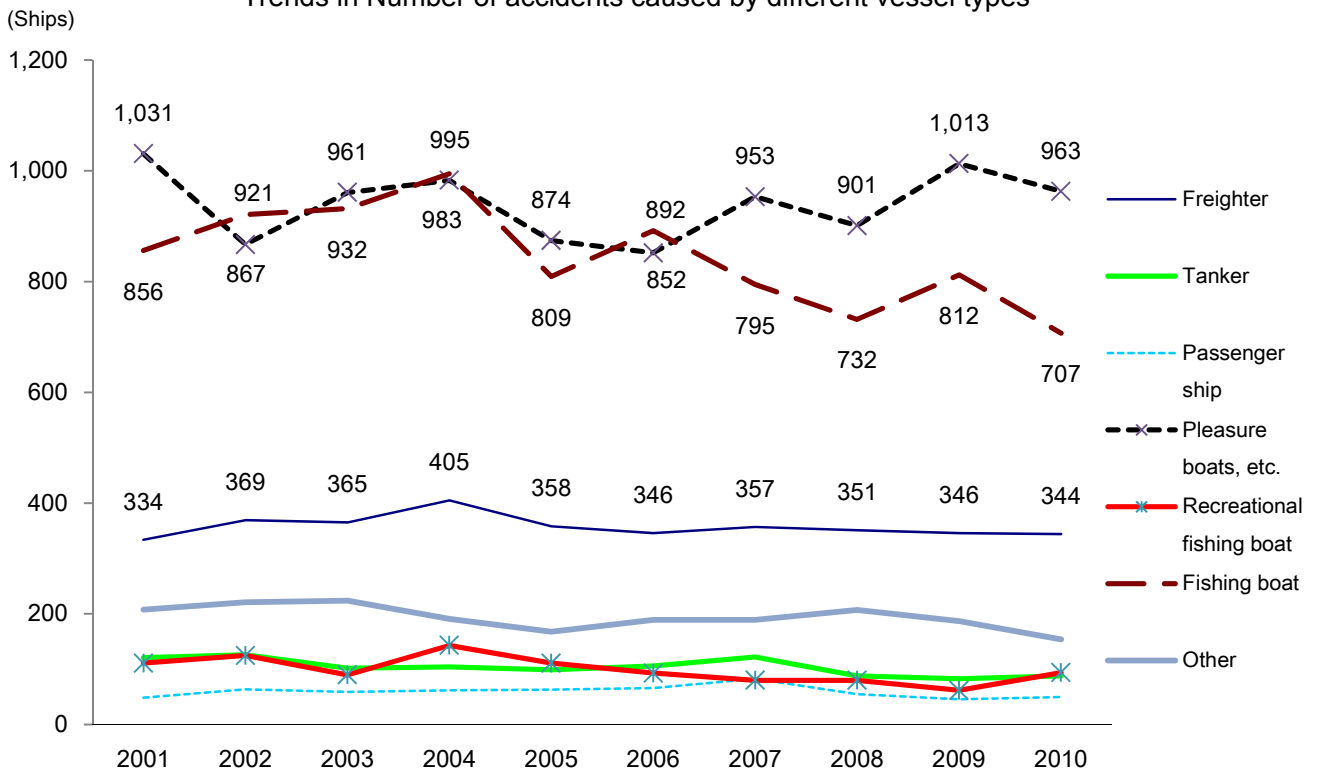
Among these, in the period from 2006 to 2010, the number of vessel accidents, excluding foreign vessels not calling at Japan, for which Japan's policy does not extend, has reached an annual average of 2,473 vessels.

The annual average number of deaths or people missing due to ship accidents or falling into the sea from ships being 250 people in the period from 2006 to 2010 has declined by about 18% compared with five years earlier (306 people).

Trends in number of vessels accidents
(For policy object, except the "foreign vessels which are not calling at Japan")



Trends in Number of accidents caused by different vessel types



II. Objectives Set in the Fundamental Traffic Safety Program

- 1) To reduce the number of marine vessels accidents occurring in Japan (excluding those by foreign vessels not calling at Japan) by approximately 10% (or below 2,220 vessels) by 2015, in comparison to the annual average of the Eighth Program period (2,473 vessels).
- 2) To prevent the occurrence of large-scale maritime accidents in the "congested waters," which cause significant social impact, such as large number of casualties or routes obstruction, and bring the number of the occurrence of those accidents to zero.

Section 2: Measures for Maritime Traffic

I. Viewpoints in Considering Future Measures for Maritime Traffic Safety

In recent years, the number of vessels for ship accidents has remained flat or showed a slight decrease trend. Subsequently, the government continues to promote various measures to prevent maritime accidents, while promoting the coordination and cooperation of the parties concerned, including the improvement and enhancement of the systems for prompt and proper lifesaving, particularly for small vessel marine accidents associated with many personal injuries in coastal waters.

In addition, if the marine accident occurs, the preventive measures based on the analysis organization of various aspects of the accident, such as the elements of the cause of the marine accident, the place of occurrence, the type and size of the concerned ship and etc., along with the detailed preventive measures will be considered. As for marine accident peculiar inclination stranding large ferry accident in 2009 off the coast of the Kumano Basin, based on the results of that investigation cause, effective preventive measures with the cooperation and collaboration of the concerned parties are considered.

In addition to these, the case studies related to close-call marine casualty incidents will be organized, collected and put into effective use through risk management in order to prevent the occurrence and recurrence of marine accidents.

II. Measures to Be Taken

[Priority measures and newly-introduced measures in the Ninth Program]

- Vessel traffic safety measures in the "congested waters" (1 (2) A, D)
- Safety measures in the event of abnormal weather conditions (1 (2) C)
- Providing information for foreign vessels (1 (2) A, 2 (2))
- Promoting transportation safety management evaluation (3 (1) A)
- Small vessels safety (fishing boats, pleasure boats, mini-boats, and as such) (2 (1), 5)
- Promotion of wearing life jackets (5 (1) C)
- Strengthening of early obtaining marine accident information system (7 (1))
- Improving and strengthening maritime accident rescue systems (7 (2))
- Strengthening of research and analysis of ship accidents. (9)

1. Improving the maritime traffic environment

To ensure safer and smoother movements of vessels and safety in ports and harbors, facing the increasing size and speed of marine vessels, the increasingly diverse use of marine environments, and the growing complexity of maritime traffic, the government will promote improvements to waterways, ports and harbors, fishing ports and aids to navigation. In addition, the government will work to improve safety-related information such as maritime charts and sailing directions, and to improve the system to provide information using IT.

(1) Improving the traffic safety facilities

A. Improving the traffic safety facilities, such as improving ports, harbors and waterways that require regular development and maintenance

To prevent the occurrence of marine accidents, such as those during a storm, and from the point of view of smooth and safe navigation of ships in ports, in response to the vessels getting larger and faster, the improvement breakwaters, waterways and anchorages will be promoted along with efforts to provide information about sea conditions, such as the information published on the website. In addition, building a communication system between relevant organizations is aimed for.

B. Improving the fishing ports

Based on the FY2007 Long Term Plan on Improvement of Fisheries Infrastructure, the government will improve fishing ports that serve as refuge ports for fishing vessels, as well as breakwaters designed with a protective effect against tsunamis, berths, and facilities for keeping out floating debris in order to improve port safety.

C. Improving aids to navigation to withstand disasters

The functions of navigation aids that are using a commercial power supply can not be maintained, if damaged by natural disasters such as typhoons, creating a situation in which the ship traffic safety can not be ensured, therefore as much as possible those will be equipped with a self-dependant power supply, such as solar power. And to ensure the reliability of aids to navigation, the government will renew aging facilities and equipment in a planned manner.

D. Improving the earthquake-resistance of ports and harbors

Based on the lessons learned from the earthquakes in the south of Hyogo and the western shores of Fukuoka, the government will implement the following measures.

(a) Improving the earthquake-resistance of wharves at major ports and harbors in Japan

In order to secure the transportation of evacuees and emergency goods in the event of a major disaster, the government will work to upgrade wharves to make them more earthquake-resistant. The government will also promote improvements to international marine container terminals and domestic shipping terminals including intermodal terminals to make them earthquake-resistant enough to ensure certain function as a part of the maritime transport network, even after a major disaster.

(b) Improving the earthquake-resistance of existing port and harbor facilities

The government will assess the earthquake-resistance of existing port and harbor facilities such as port roads. As needed, it will then work to upgrade the earthquake-resistance of bridges and elevated parts of such facilities. The government will also implement measures to prevent liquefaction of facilities that may take a long time to restore after the occurrence of a disaster involving liquefaction.

E. Improving the earthquake-resistance of fishing ports

In coordination with local disaster prevention plans, the government will promote improvements to fishing ports that can serve as bases for local rescue activities and those for distribution of fishery products in the event of disasters such as earthquakes. This will be achieved by working to create berths that can be used by rescue boats, earthquake resistant-wharves and transportation facilities.

In addition, the government will also work to investigate the current earthquake-resistant structures of fishing ports and examine the technical development of quake-proof engineering.

F. Promoting the security measures of the ports and harbors

So that security measures of international wharves based on the Act for the Security of Ships and of Port Facilities (Act No. 31 of 2004) are implemented properly, the government will reinforce the security measures in ports and harbors by confirming the status of implementation, carrying out

human resource training, as well as promoting upgrade of the access control of ports and harbors and improvements on the security facilities of domestic passenger terminals.

(2) Improving traffic control and distribution of maritime traffic information

A. Promoting vessel traffic safety measures in the “congested waters”

The government will promote the safety of marine traffic by carrying out the provision of information and recommendations for the safety instructions from the Traffic Advisory Service Center. In addition, the government will promote the reliability and functional improvement of the center, through the expansion of training for improving skills of air traffic controllers of the operation center, improving operation tables for the development of training, and by promoting the strengthening of the radar monitoring function through the duality of the system.

B. Improving weather information

The government will accurately understand any weather conditions or natural phenomena which could influence maritime transport safety, and make efforts to improve various qualities of marine meteorological information, such as warnings of gales, storms, typhoons, fog and tsunamis, and forecast charts of typhoons and ocean waves, and to ensure appropriate timely announcements and prompt conveyance of such information.

Furthermore, facilities for observing weather conditions and tsunamis will be constructed as necessary, and maintenance and improvement of those facilities will be promoted. At the same time, the government will promote information sharing with disaster prevention organizations, and strengthening IT-utilized observation or monitoring systems. Improvement of people’s knowledge about meteorological phenomena will also be promoted by way of publicity activities, seminars, etc., with the aim of making more effective use of such information.

C. Strengthening of safety measures in the event of abnormal weather

During the abnormal weather or sea conditions, depending on the circumstances of the occurrence of a marine accident, if there is a possibility of causing a serious risk to vessel traffic, necessary measures for the ships should be taken through the guidance, recommendations, and safety reminders, and the safety of the ship ensured.

D. Advanced development of aids to navigation in the “congested waters”

In areas where vessel traffic is congested, in case of an occurrence of a large-scale marine accident and blockage of a sea-route, it would not only cause great social damage and loss of lives, property and the environment, but will also cut off the maritime traffic, holding a risk of paralyzing economic activities in Japan. Therefore, the government will promote the development of sophisticated enhancement to strengthen the provision of tidal information in areas of numerous transiting foreign vessels, massive ships, or ships carrying hazardous materials, along with improving visibility and distinctiveness of aids to navigation, serving as indicators for moving vessels.

E. Improvement of convenience and enhancement of navigation safety information

In order to promote safe and efficient navigation and prevention of marine accidents, navigational charts (paper charts and electronic charts) and navigational publications (such as Waterways Magazine) will be accurately maintained. In addition, the government will provide notices to mariners, as necessary information to keep up to date on the above and other navigational charts, while providing urgently needed navigation warning, such as the presence of obstacle routes, in order for the ship to maintain the latest information and navigate safely, through the appropriate means.

In particular, regarding the electronic charts, in order to make the obligatory installations of the electronic chart display system, the improvement of frequent updates and enhancement of the information in accordance with international standards will be implemented, while accurate

information contributing to safe and efficient operation and improvement of convenience will be provided.

Furthermore, with the increase in the number of foreign crew, the area paper charts published in English will be enhanced to promote the safety of navigation in the waters around Japan and to improve the convenience for foreign sailors.

Regarding small vessels operators, the methods and systems of information provision, that make it possible to see navigation warning information by a mobile phone, are considered.

In addition, in order to respond efficiently by marine salvage, during safe navigation and an occurrence of a marine accident strengthening the system of collecting and providing rapid and accurate information through ocean HF radars for real-time sea tidal data will be promoted.

(3) Improving passenger ship terminals for the aging society

To ensure the safety of users in ports and harbors, there is a need to consider a variety of specific factors, such as vibration of floating piers and changes in inclination of paths due to differences in sea levels. In view of this, the government will promote the construction of "barrier free" facilities, featuring elimination of steps, and the installation of guide blocks for visually impaired people. This will ensure that all people, including the elderly and disabled, will be able to safely and comfortably make use of passengers vessels, passengers terminals, mooring facilities and marinas.

2. Disseminating knowledge on maritime safety

To improve maritime traffic safety, it is necessary to raise awareness about prevention of maritime accidents, not only among people involved in marine-related affairs, but also to marine leisure devotees and each member of the nation. In recognition of this point, the government will make use of a wide range of opportunities to promote awareness of maritime accident prevention.

The government will also provide more concrete and effective safety guidance, according to the specific characteristics of various sorts of vessels and maritime accident conditions.

(1) Promoting awareness of maritime accident prevention

The government will promote broad spread and enhancement of ideas about maritime accident prevention, as well as the improvement of skills learning and knowledge regarding maritime accident prevention through activities and maritime accident prevention highlighting seminars.

(2) Providing information for foreign vessels

The government will provide the necessary information on the safety of navigation for the foreign vessels unfamiliar with the geography and the conditions of waters around Japan, by vessel stopover, or through representative agencies or the Internet.

3. Securing safe vessel navigation

To promote greater marine transport safety in terms of vessel operation, the government will work to maintain and improve the knowledge and skills of people involved in marine affairs, and to establish a system for improved operational safety.

For this, the government will improve and strengthen appropriate guidance and supervision concerning the improvement of the quality of the crew, pilots, passenger ship operators and domestic carriers, and the improvement of operation management, based on the factor analyses of accidents, while promoting auditing by inspectors for safety management and seafarers labor who were assigned as a newly established position in April 2005.

Within a framework of international cooperation, the government will also work to promote supervision on qualifications for crews of foreign vessels calling at ports in Japan.

In addition to the above, they will promote the establishment of a system of safety management that involves every level of operator, from the top management to the operational

sector, while introducing the mechanism of “management assessment” in which the government will assess such system.

(1) Promoting effective operations management of vessels

A. Promoting transportation safety management evaluation

In order to reduce the accidents of merchant vessels in the maritime field, business operators are now working together internally to build and improve the safety management system, while the national government will check the status of their implementation transportation safety management evaluation, based on the characteristics such as the type of shipping business and size, and promote the detailed guidance to target entities. Furthermore, the government will organize a collection of close-call incidents among the marine accident cases, and will strive to raise the risk management awareness of the business operators.

B. Strengthening the supervision of passenger ship operators

The government will implement audits of passenger ship operators and domestic carriers, focusing on their observation of operation management rules. At the same time, to make auditing more effective, the government will work to improve auditing methods and implement audits more vigorously.

C. Improving seminars for operation managers and safety management officers

The government will work to improve the standard of seminars for operation managers, safety management officers and crews, making use of the results from analysis of the latest accident cases. Through this measure, they aim to improve the level of knowledge and awareness of operations management among seminar participants.

The government will also work to improve training on how to handle passenger ship accidents, with the aim of improving the ability of passenger ship crews and companies to deal with accident situations.

D. Implementing accident recurrence prevention measures thoroughly

If it is found that the basic cause of an accident involving a passenger vessel lies in the company's operations management system, the government will establish an investigation commission with the participation of external experts, entrust the commission with formulation of drastic measures to prevent recurrence of the accident and instruct the company on vigorously implementing these measures.

Also, whenever necessary, depending on the nature of the accident and the frequency of occurrence, the government will issue cautions to passenger ship companies and passengers through relevant organizations and the media, in order to raise awareness about accident prevention.

E. Promoting the release of safety information

To enable passengers to choose appropriate passenger companies and also to provide companies with the incentive to promote higher standards of safety, the companies and the government will publicly release information about the scheme to ensure safety in the sea passenger transport business and about accidents, according to the role of each.

(2) Ensuring the quality of the crew

To conform with the “International Convention on Standards of Training, Certification and Watchkeeping for Seafarers” (the STCW treaty), which was enacted in 1978, the government will strive to update the knowledge and skills of ship personnel by checking the knowledge and skills for the latest navigation equipment, while calling for a certain boarding work experience when carrying out the sea engineer test based on the Act for Ships’ Officers and Boats’ Operators (Act No. 149, 1951), and requesting a certain boarding record or participation in workshops when updating the seamen’s competency certificate every five years. Furthermore, since improvement of seamen’s

quality is important to prevent human errors, all seamen's training organizations that teach science on vessel navigation or provide sea training will implement training for new seamen and re-education for other seamen, and also work to enrich their education programs.

In addition, the government will maintain and improve the safety awareness of the crew by thoroughly implementing audits by the inspectors for safety management and seafarers labor in regard to pre-departure tests, proper implementation of training, securing of a navigation watch system, and establishing an inspection system on board, based on the Mariners Law (Act No. 100, 1947).

In addition, based on the response to the latest navigation equipment the STCW treaties, which were adopted in June 2010, became subject to a revision (such as communication skills required for the new provision sailors, and response capabilities of new technologies), aiming to be fully implemented within five years from the date of entry into force of the amendment.

(3) Promoting measures to prevent accidents involving seamen

To help prevent maritime accidents caused by poor labor standards on ships by improving safety and health management, the government will steadily implement the Basic Plan Concerning Disaster Prevention for Seafarers and the Implementation Plan Concerning Disaster Prevention for Seafarers, which were formulated according to the Law for Promotion of Prevention of Seafarers' Disaster (Act No. 61 of 1967).

(4) Ensure safety through pilotage system

Based on the Pilotage Law (Act No. 121 of 1949), the grant and renewal of pilot license is implemented only for those who have the knowledge and skills necessary to perform the pilotage duties, along with proper operation of the compulsory pilotage system in prescribed ports or waters, while necessarily boarding as a pilot. In addition, through the secure and stable pilot training beginning with the 3rd grade pilots the safety of marine traffic will be promoted.

(5) Promoting supervision of foreign vessels

Although the standards for the training, credentials and duties required by seafarers have been stipulated in international treaties, such as the STCW treaty, from the fact that the occurrence of marine accidents, caused by vessels that do not meet the treaty criteria (sub-standard ships), is not rare in Japanese adjacent waters, in order to prevent these marine casualties, and to ensure the safety of ship navigation, (PSC) supervision of foreign vessels under the concerned treaty will be promoted.

Also based on the framework of the Memorandum of Understanding on Port State Control in the Asia Pacific Region (Tokyo MOU), the government will promote an effective PSC with the authorities in the Asia Pacific region to eliminate substandard vessels.

(6) Introduction of the latest navigation equipment

In regard of avoiding collisions of ultra-high-speed boats with underwater obstacles, based on the elaboration of obstacle detection system, the government will commit to integration of tangible and intangible security measures.

In addition, the expanded promotion of Automatic Identification System (AIS), which is currently obligatory for oceangoing cargo ship over 300 tons, and for coastal vessels over 500 tons, for the ships with no duties installed is being examined.

4. Ensuring vessel safety

In order to ensure vessel safety, the government will work under an international system of cooperation to improve the standards and inspection systems relating to vessel structures, facilities, marine transport of hazardous material and safety management systems, while promoting PSC on structures and installations of foreign vessels calling at ports in Japan.

(1) Improving vessel safety standards

In order to improve the safety of vessels, IMO is working to investigate improvements to safety standards on vessel construction and facilities. While keeping pace with these movements, Japan will improve its own standards and inspection systems, as needed, to meet the new challenges presented by technological innovations and diversification of maritime transport. In particular, regarding the new generation stability criteria (rollover prevention standards) and the safety operation standards for marine transportation of hydrogen fuel cell vehicles, the government will promote the performance criteria that allows a wide variety of regulatory compliance methods to be observed, while actively responding to the study of new safety standards in the International Maritime Organization of e-Navigation strategies toward building the next generation of navigation support systems, in order to reduce the cost of regulatory compliance and the promotion of innovation by the ingenuity of businesses.

The government will also actively keep up with international improvements to marine transport by improving the safety of vessels, for example, by the construction of an international database (EQUASIS) to publicize information on the safety of individual vessels with the aim of preventing the operation of substandard vessels.

Furthermore, necessary measures that take universal design into account will be taken so that passenger ship operators can easily meet obligations to make passenger vessels "barrier free," as stipulated in the Transportation Accessibility Improvement Act.

(2) Improving vessel inspection systems

Vessels with hull forms that are completely different from traditional design approach have increased due to technological innovation and diversification of marine transport in recent years, and very advanced and complicated inspections have become necessary. To deal with these situations, the government will introduce a stringent quality control system based on ISO9001 and enhance the quality of the vessel inspection systems.

Furthermore, as for maritime transport of dangerous goods, along with the efforts to maintain the national regulations based on international safety standards as defined by the IMO, the government will promote the enhancement of the safety inspection system and commit to the prevention of accidents in the maritime transport by carrying out on-site inspections and various inspections of the vessels transporting hazardous materials before the transportation.

In addition, from the viewpoint of the safety of human life at sea, the International Safety Management code (ISM code) that establishes effective prevention of human-errors and comprehensive safety management system for vessels and the companies that operate them, is being applied as the scheme by which the government approves the voluntary safety management system built by applicants, including operators of domestic vessels that are not required to comply with the code.

(3) Promoting Port State Control

Since serious problems are still occurring in ensuring the safety of life and navigation caused, to no small extent, by maritime accidents that arise from "substandard vessels" that do not comply with the standards of the international convention, the government will promote PSC for foreign vessels adequately on the structure and installation based on the SOLAS Convention and the International Convention on LOAD LINES, 1966 (LL Convention).

Also, based on the framework of Tokyo MOU, the government will promote an effective PSC with the authorities in the Asia Pacific region to eliminate substandard vessels.

5. Enhancing safety measures for small vessels

To prevent maritime accidents by small vessels (fishing boats, pleasure boats and as such), which make up 70 percent of all maritime accidents, it is essential to improve the environment for safe navigation and strengthen the rescue system, as well as to increase the safety awareness of marine leisure enthusiasts and those involved in fishery.

To achieve this, the government will promote the improvement of “boat parks,” orderly use of waters, wearing of lifejackets, and improvement of mobile rescue that utilizes helicopters.

Furthermore, casualties and disaster prevention measures for elderly crew and fishing boats will be promoted based on the Basic Disaster Prevention Plan for Seamen and Disaster Prevention Implementation Plan for Seamen.

(1) Promoting safety measures for small boats

A. Strengthening provision of maritime safety information for small boats

Since small vessels have poor information access and inferior sea tolerability, the government will promote enhancement and strengthening of safety measures for small boats, by building a system for active provision of information through enhancement of websites for small boats, and through the use of functions such as mobile phone email delivery, so they can be warned in advance, in response to the urgency of presence of route obstacles and sudden changes of weather.

B. Understanding and awareness of regulatory requirements for small boats pilots

In order to improve safety awareness and manners of small boats pilots, and to contribute to the prevention of marine casualties, the government will promote the understanding and awareness of the regulatory requirements (such as prohibition of drunken pilots and wearing of life jackets) through the latest information.

C. Improving the rate of life jacket wearing

Life jacket wearing rate (Percentage of those who fall out into the sea, wearing a life jacket) in 2010 was about 48%, and if looked at by boat type, the lowest rate of life jacket wearing was for fishing boats.

Life jacket wearing rate for the fishermen, who accounted for about 60% of the dead or missing in the occurred accidents, the situation still remains weak at around 30%.

For this reason, since it is necessary to improve the rate of life jackets wearing for fishermen in particular, the relevant ministries and agencies, local governments and related organizations are working in collaboration to further raise the awareness and create guidance to ensure self life-saving measures targeting fishermen, aiming at understanding of the effects of wearing life jackets and its implementation.

In addition, new and effective measures that will contribute to the improvement of wearing rate are considered.

[Numerical objective]: More than 50% average in five years

D. Introduction of the latest navigation equipment

Investigations towards the introduction and dissemination of navigation equipment that contributes to accident deterrence, starting with the equipment for improving recognition from other vessels (such as AIS), will be implemented.

(2) Promoting safety measures for pleasure boats

A. Promoting guidance on safety measures of pleasure boats

With the cooperation of relevant ministries, relevant agencies, and organizations, aiming at ship owners, the government will implement proper vessel inspections along with promoting safety guidance regarding wearing of life jackets and compliance matters during maneuvering, through maritime accident prevention seminars and on-site guidance, by carrying out the guidance for enforcement of fundamental issues for safe operation, aiming to raise the awareness of marine leisure enthusiasts for self-prevention of maritime accidents.

B. Implementation of safety measures for mini-boats (less than 3m in length, less than 1.5kW engine power, the boat inspection and licensing unnecessary)

In order to promote the safe and secure use of mini-boats, based on the guidelines founded on the study of the proposed measures and the analysis of the causes of subversion troubles, the government plans to promote the awareness safety activities for the users along with reaching out for the related organizations, and the establishment of consultations windows to promote the holding of safety seminars.

C. Promoting accident prevention measures in rivers

Based on the causes of accidents in rivers and lakes, such as falling overboard and non-compliance with navigation, the government will implement safety awareness activities for leisure enthusiasts and fishermen, in cooperation with parties concerned, for life jacket wearing and the compliance with the operating rules defined for rivers and lakes.

(3) Developing boat parks and “fisharenas”

A. Improving boat parks

To resolve the issue of illegally moored boats, which have become a problem in various parts of Japan in recent years, and to promote the orderly use of ports and harbors and public water areas, the improvement of boat parks including mooring facilities that utilize the banks of existing quiet water areas and land-based storage facilities that utilize public vacant lots is being promoted through public projects. Moreover, the government will promote the improvement of marinas run by private and semi- public sectors by actively introducing the fund and initiative of the private sector including “the method of building, maintaining and operating public facilities by utilizing the funds, management skills and technical capabilities of the Private Finance Initiative.”

To secure the safety of pleasure boat activities and promote the orderly use of the water areas, the government will pay full attention to the setup of the location of boat parks and pleasure boats’ recreation areas, and secure the safety in boat parks.

B. Improving “fisharenas”

The number of pleasure boats using fishing ports is increasing with the general growth in marine recreation needs. To prevent potential problems between pleasure boats and fishing boats, the government will proceed to develop “fisharenas” designed to separately accommodate fishing boats and pleasure boats.

C. Improving the mooring and berthing capacity and regulating illegally moored boats

With the improvement of mooring and berthing capacity to solve the problem of illegally moored boats, the government will actively promote the local government designation of the areas for prohibiting the illegal mooring of boats based on the Port and Harbor Act (Act No. 218 of 1950) and Fisheries Infrastructure Improvement Act (Act No.137 of 1950), after considering the viewpoints of Tsunami and tidal wave disaster prevention and landscaping.

Furthermore, the government will proceed with an investigation on the introduction of regulations to make it mandatory for pleasure boat owners to have an approved mooring space for their vessels.

(4) Promoting safety measures for fishing boats

Fishing boat accidents make up over half of the accidents that involve deaths and missing persons, and the rate of fishing boat crews wearing lifejackets as described above, still continues to remain very low at about 30% in 2010. Also, the majority of maritime accidents are still caused by human-factors such as operation errors including inadequate watch-keeping and improper ship handling resulting from carelessness of crew members, and inappropriate handling of engines. Under these circumstances, the government is to promote safety measures on fishing boats by heightening and educating safety awareness through maritime accident prevention workshops for

fishing workers in cooperation with relevant government agencies, and by instructing these workers to observe safety precautions.

6. Enforcing laws in maritime traffic

The government will implement guidance and reinforcement relating to the maritime traffic law violations, and maintain law and order of the maritime traffic. The government will strengthen enforcement guidance on navigation in congested maritime transportation routes, in addition to carrying out enforcement guidance on offenses that may lead to the occurrence of marine accidents, such as unlicensed operation and out-of-bounds area navigation, and will particularly strengthen enforcement guidance during the times when maritime transport and maritime recreation activities become busy, in order to maintain law and order of the maritime traffic.

7. Enhancing rescue and emergency services systems

To reduce the numbers of deaths and missing persons resulting from maritime accidents, it is vital to obtain information about accidents as quickly as possible, make accurate drifting forecast, promptly dispatch rescue parties, and strengthen search, rescue, and emergency medical capabilities. For this, the government will reduce the response time by improving the mobile rescue system that utilizes the mobility and speed of helicopters, and improve rescue and emergency service activities such as to improve the advanced rescue system by emergency life-saving technicians. According to the statistics of the past five years, despite the fact that the rate for the rescue-required marine accidents of the entire rescues (percentage of successful rescues for rescue-required) has remained at a high level, about 95 percent, in case of the rescue rate for marine accidents of falling-over into the sea for vessels of less than 20 ton, it is significantly lower, about 30%. Therefore, along with maintaining the rate of rescue-required marine accidents of the entire rescues at 95 percent or higher, the government will set the target to increase the rescue rate for marine accidents of falling-over into the sea for vessels of less than 20 ton, to 35% or higher.

In addition, the government will promote understanding of real-time ocean tides and implement high accuracy drift prediction. Since according to the statistics of the past five years, the accuracy rate of drift prediction (percentage of accurate predictions for the number of implemented drift predictions, except for the unknown results) regarding marine accidents is 70% average, the government will set the target to increase the past five-year average by approximately 5 percentage points to 75% and higher.

[Numerical objectives]:

Maintain the rate of rescue-required marine accidents of the entire rescues at 95% or higher

Increase the rescue rate for falling-over marine accidents for vessels of less than 20 ton to 35% or higher

Increase the 5-year average accuracy rate of drift prediction to 75% or higher

(1) Strengthening of early obtaining marine accident information system

Considering the possible time of survival in case of falling overboard and the time required for a sea rescue operation, while the goal to rescue in the survival state is within 2 hours, the notification rate for obtaining information from the Coast Guard in case of a marine casualty occurrence within 2 hours has become about 80%, for fishing boats however it is about as low as 70% compared with others.

For these reasons, the government will continue to carry out awareness-raising and publicity guidance activities to broadly promote the "general effective use of "No. 118" emergency telephone number, along with "securing means of contact by mobile phone waterproof containing pack", in addition to guidance visits to fishery relevant institutions and organizations, and strengthening realization of safety awareness for the people involved, especially fishermen.

By promoting such measures, the government aims to increase the rate for rescue within two

hours from the occurrence of a marine accident to 85% or higher.

With a view to performing efficient search and rescue (SAR) operation by concentrating relevant information, Japan Coast Guard (JCG) is integrating its communications and SAR operation functions by revising relevant organizations. JCG is also replacing the Cospas-Sarsat ground segment in order to receive and process distress alerts from new type satellites.

[Numerical objective]: To increase the rate for rescue within two hours from the occurrence of a marine accident to 85% or higher

(2) Improving and strengthening maritime accident rescue systems

After the acknowledgement of the marine accident occurrence information, the importance of improving the rate of how quickly the rescue forces arrive at the scene of rescue or from the fact that many of the marine accident has occurred within the distance of 20 sea miles of the coastal areas, there is a need to strengthen the system by emergency life guards and paramedics rescue system utilizing helicopters.

For these reasons, rescues in coastal areas with a higher risk of maritime accidents, the government will allocate a “mobile rescue technicians” equipped with ranger rescue techniques, diving ability and emergency medical techniques to 8 air bases around Japan. Since the range of emergency medical procedures that emergency life-saving technicians are allowed to apply expands and advances year by year, the government will improve the skills of emergency life-saving technicians and promote improvement of the medical control system that guarantees the quality of emergency medical procedures operations from the medical viewpoint.

Furthermore, the government will replace aging and out-of-date patrol boats and aircrafts, strive for technological advantages including the improvement of speed and nighttime search capabilities, improve and strengthen the search parties by reducing the time required in reaching the destination or for searching.

In addition, to deal effectively with operations that require advanced technology and expertise, such as rescuing people from capsized boats, the government will improve rescue systems by upgrading human resources, while Marine Rescue Japan will conduct marine emergency service projects in which doctors and nurses are quickly and smoothly dispatched to attend to sick or injured people at sea.

8. Promoting victim support

Depending on the accident, the government will work to review the responsibility of ship owners in relation to compensation for harm and damage caused to passengers and third parties in accidents at sea, taking into account recent changes in the standards of damage for marine insurance.

The government will implement measures with due consideration to victim’s feelings. Particularly, in case of a large-scale accident, the Japan Coast Guard, police, medical institutions, local authorities and private victim support organizations will work together to support the victim. In addition, with the participation of victim organizations, by considering the contents of assistance sought by traffic accident victims in Japan, the reality of the roles of relevant institutions and national governments, businesses, and etc., the realization of the centralized counter feature for traffic accident victims, and the realization of a system that is required, the government will make the necessary efforts towards the development of mechanisms and systems of support according to the actual situation in Japan.

9. Identifying the causes of vessel accidents and preventing their recurrence

(1) Identifying the causes of vessel accidents and preventing their recurrence

In order to perform accurately and quickly to investigate the causes for signs of ship accidents (serious vessel incidents), to enhance the training specialist for the staff in charge of the investigation, along with improving survey techniques, for various surveys and ship accidents, the government strives to improve analytical skills through the use of the equipment to contribute to the

prevention of ship accidents. In addition, the government will promote comprehensive research through the use of know-how and various stock analysis techniques, such as accident analysis results obtained in the study for past accidents, etc., with the results reflecting the investigation of the causes.

In addition, based on the results obtained in the accident investigation, for accident prevention or for the relief of victims of the cases of accidents occurrence, if necessary, the government will report to the Minister of Land, Infrastructure and Transport, or the cause parties concerned or the relevant administrative organs of the Minister of Land, Infrastructure, Transport and Tourism by expressing an opinion to the head, or asking for the implementation of the necessary measures, and will contribute to the safety of maritime traffic.

In addition, based on the knowledge that has been accumulated from the investigation of the past accidents, for the particular accident types, the government will analyze trends, problems, prevention measures, and publicize the results, in a way that is easy to understand the survey results of such accidents, and will conduct educational activities that lead to the prevention of accidents, such as issuing a magazine to introduce periodic information.

In addition, under the SOLAS Convention, along with ensuring the implementation of vessel accident investigation when more than one country is involved, participating in the study on accident investigation in IMO, by exchanging information, the government will contribute to improve the safety of maritime traffic in the world.

(2) Promotion of accidents analysis

While implementing highly specialized analysis regarding marine accidents, Maritime Research Institute was established in September 2008 in the "Analysis Center accidents" to reflect the marine traffic safety measures by carrying out the analysis and transmission of information in the event of rapid information of serious accidents.

10. Enhancement of research relating to safety of marine traffic

In order to improve accuracy, the government will conduct comprehensive studies regarding marine information including the prediction of the flow of the sea.

In order to contribute to the safety and efficient navigation sailing in coastal areas, more precise and detailed flow conditions will be estimated and predicted by methods of incorporating the real-time simulation of HF radar ocean current data and sea surface height by satellite data, and consideration of methods for regularly sending the information obtained.