

Chapter 6 Efforts toward accident prevention

1 Publications

The JTSB prepares and issues various publications, as well as investigation reports, regarding specific cases.

We place these publications on our website and, in order to make them more accessible to the public, we also introduce them through our monthly JTSB E-Mail Magazine service (only available in Japanese).

Our e-mail magazine service is widely used by people in the aviation, railway, and shipping industries, as well as administrative agencies and educational/research organizations.

We also exchange opinions with business operators and other parties on effective information dissemination from the JTSB, and we will continue to make improvements based on the opinions that we receive.

JTSB Website

The screenshot shows the JTSB website interface. At the top, there is a navigation bar with the JTSB logo and text in Japanese and English. Below this, there are three large circular icons representing Aviation, Railway, and Shipping. To the right of these icons is a search bar and two buttons for 'Ship Accident Hazard Map' and 'Mobile'. A red circle highlights the 'Digests and Other Publications' menu item in the navigation bar. Below the navigation bar, there is a section titled 'Digests and Other Publications' with a list of items: 'JTSB Digests', 'Annual Report', 'Past Publications', and 'IMO (International Maritime Organization) Marine Accident Analysis'. An orange arrow points from a yellow box at the bottom right to the 'Digests and Other Publications' menu item. The yellow box contains the text: 'Subscribe to the JTSB E-Mail Magazine here. (in Japanese)'.

2 Issuance of the JTSB Digest

With the aim of fostering awareness of safety, and preventing similar accidents from occurring, we issue “JTSB Digests.” This publication introduces you to statistics-based analyses and must-know cases of accidents.

We also issue the English version of “JTSB Digests” as part of our efforts to disseminate information overseas.

In 2015, we released four issues of “JTSB Digests” (January, April, September and December: Issues No. 16-19) as well as one issue of the English version of “JTSB Digests” (January).

The contents of each issue are as follows.

1) JTSTB Digests Issue No. 16 [Analyses of Marine Accidents] “Toward the prevention of accidents with casualties during fishing activities by small fishing vessels” (Issued on January 27, 2015)

- Circumstances of each accident
- Case study of an accident investigation: “At night, after casting nets for small trawl net fishing, the skipper fell into the water and died.”
- Case study of an accident investigation: “At night, while hauling trawl nets, a crew member was noted missing and although searched for, was not discovered and died.”
- Case study of an accident investigation: “While engaging in trawl net fishing, the skipper was caught in a net roller together with nets and died.”
- Case study of an accident investigation: “Operation of a control lever in the reverse direction, causing a finger on the operator’s right hand to be caught between the rope and windlass and injured.”
- Case study of an accident investigation: “A passenger fell into the water, but was wearing a life jacket and used a mobile phone to call 118, allowing quick rescue.”



2) JTSTB Digests Issue No. 17 [Analyses of Marine Accidents] “Toward the prevention of accidents involving personal water craft” (Issued on April 21, 2015)

- Circumstances of each accident
- Case study of an accident investigation: “Vessel B, which was following close to the stern of Vessel A, collided with Vessel A, which had passed under a wave and come to a stop.”
- Case study of an accident investigation: “After an unlicensed operator lost his balance and fell into the water, the vessel sailed on and collided with a swimmer.”
- Case study of an accident investigation: “During departure, a passenger in the rear-most area fell toward the back of the seats and into the water, and suffered serious injuries when her lower body was struck by the jet flow.”
- Case study of an accident investigation: “A water tube being towed collided with an anchored pleasure boat, and a person on board the water tube was injured.”



3) JTSTB Digests Issue No. 18 [Introduction of Aircraft Accidents] “About close call incidents in the aviation field” (Issued on September 15, 2015)

- Accident content
- Case study of an accident investigation: “While descending, an aircraft encountered strong rearward turbulence from the preceding aircraft, causing the aircraft to shake and causing two cabin attendants in the rear galley to fall.”

- Close call incident case study: “Immediately after takeoff, an aircraft was caught in the rearward turbulence of the preceding aircraft”.
- Case study of an accident investigation: “Case study where a small aeroplane that had landed was disabled due to rearward turbulence from a large passenger aircraft.”
- Case study of a serious incident investigation: “On approach to Kansai International Airport, an aircraft attempted to land at a closed runway, but then made a go-around.”
- Close call incident case study: “An aircraft made an error in the approach route to an airport when landing.”



4) JTSB Digests Issue No. 19 [Analysis of Marine Accidents] “Toward the prevention of fishing vessel accidents - Ensuring the safety of fishing passengers” (Issued on December 15, 2015)

- Circumstances of each accident
- Case study of an accident investigation: “While a ship was anchored, a fishing passenger walking on a bulwark fell into the water and died.”
- Case study of an accident investigation: “A fishing passenger leaning on a cooler on the quarter deck fell into the water and died.”
- Case study of an accident investigation: “A fishing passenger sitting toward the front of the bow deck was tossed into the air and fell due to the shaking of the ship, sustaining injuries.”
- Case study of an accident investigation: “While a ship was drifting, its skipper was taking photographs of fishing passengers and did not notice an approaching ship, which collided with it.”
- Case study of an accident investigation: “While a ship was sailing, its skipper became absorbed in conversations with fishing passengers and did not keep a lookout, and collided with a drifting ship.”
- Case study of an accident investigation: “At night, while a ship was sailing toward a fishing location, it collided with a rocky area and the skipper and fishing passengers were injured.”
- Case study of an accident investigation: “A fishing passenger who was attempting to move from a rocky area to a ship fell from a boarding gangplank into the water and died.”
- Case study of an accident investigation: “While passing through a rocky area, a ship was struck by large waves from the direction of the stern, capsizing and resulting in one fatality and six injuries.”





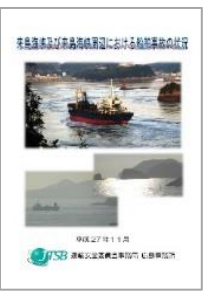

5) For Prevention of Accidents due to the Shaking of the Aircraft (Issued on January 27, 2015)




3 Issuance of the Analysis Digest Local Office Edition

The JTSB has issued the analysis digest local office edition (only available in Japanese). It has issued this publication in order to provide various kinds of information to help prevent marine accidents. The information is based on the analyses made by our regional offices and relates to specific accidents

that occurred in their respective jurisdictions. This information focuses on cases with characteristic features such as the sea area, the type of vessel, and the type of accident.

(Analysis Digest Local Office Edition in 2015)

<p>Yokohama</p>	<p>“How to fully enjoy fishing from a boat!!” “Toward preventing accidents involving pleasure boats”</p> <p>(Main content)</p> <ul style="list-style-type: none"> ▪ Circumstances of each accident ▪ Conditions by each accident type ▪ Steps for preventing recurrence 	
<p>Kobe</p>	<p>Water play equipment: Be careful of things like these too! - Added enjoyment with proper use -</p> <p>(Main content)</p> <ul style="list-style-type: none"> ▪ Accidents due to use of water play equipment (4 examples) ▪ Measures for preventing recurrence 	
<p>Hiroshima</p>	<p>Circumstances of marine accidents in Kurushima Strait and its surrounding areas</p> <p>(Main content)</p> <ul style="list-style-type: none"> ▪ Circumstances of marine accidents in Kurushima strait and its surrounding areas ▪ Circumstances of accident occurrences and amounts of marine traffic ▪ Breakdown of accidents ▪ Analysis of marine accidents in the areas surrounding Kurushima Strait ▪ Accident case studies (4 examples) ▪ Points of caution by area of water ▪ Summary <p>Fireworks displays and marine accidents - Be careful of oyster rafts. Many accidents occur when they are returning! -</p> <p>(Main content)</p> <ul style="list-style-type: none"> ▪ Marine accidents that occurred at a fireworks display on July 26, 2014 (Saturday) ▪ Past examples of accidents ▪ Points for physical safety, and other precautions ▪ Summary 	 

<p>Moji</p>	<p>Circumstances of accidents involving collisions with lighted buoys at Kanmon Port</p> <p>(Main content)</p> <ul style="list-style-type: none"> • Introduction • Circumstances of occurrence of marine accidents and incidents • Details on accidents involving collisions with lighted buoys at Kanmon Port • Accident case studies (2 examples) • Summary 	
<p>Nagasaki</p>	<p>Circumstances involving accidents due to dozing off during ship operation at the west coast of Kyushu</p> <p>(Main content)</p> <ul style="list-style-type: none"> • Circumstances of occurrence of accidents involving dozing off during ship operation • Marine accident case studies • Lessons from accidents • Summary 	
<p>Naha</p>	<p>Circumstances of capsizing accidents in areas of water with coral reefs</p> <p>(Main content)</p> <ul style="list-style-type: none"> • Introduction: About capsizing accidents in waters with coral reefs • Circumstances of occurrence of accidents, etc. • Accident case studies (3 examples) • Summary: Toward preventing the recurrence of capsizing accidents 	

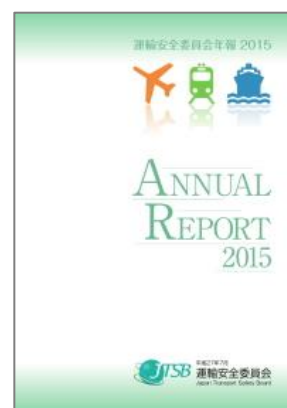
As you read these local office digests, you can not only find out the circumstances of local accidents, but can also gain some tips for accident prevention.

The local offices will make further efforts to regularly issue the analysis digest local office editions. By doing so, they will ensure that you will be provided with more satisfactory content.

4 Issuance of the JTSB Annual Report

In July 2015, we issued the JTSB Annual Report 2015. We did so in order to share the lessons learned from accidents and incidents with interested parties, by introducing our general activities in 2014.

As part of our efforts to provide information overseas, we issued the English version of the report “Japan Transport Safety Board Annual Report 2015” on December 2015. We did so to let people overseas know about the topics in this Annual Report.



Column

Disseminating Information to Marine Leisure Boats

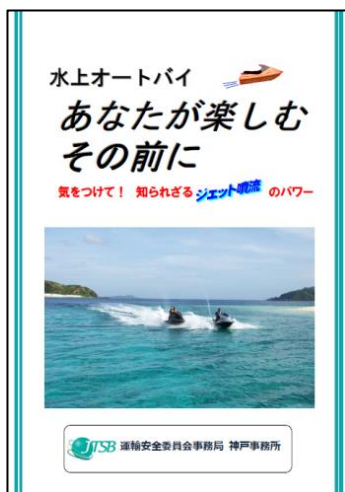
Kobe Office

The areas under the jurisdiction of the JTBSB Secretariat Kobe Office include Lake Biwa in Shiga Prefecture, and also large and small swimming beaches and various marine leisure locations along coastal areas. Therefore, we have made efforts to prepare documents analyzing the results of accident investigations involving leisure boats, and have created 3 types of leaflets from 2013 to 2015 based on accident case studies. With the intention of “preventing accidents and reducing damage” which is the duty of the JTBSB, we have directly handed these leaflets to safety associations for leisure boats and other parties, as well as to leisure facilities, to communicate this information to the public.

When creating the leaflets, we paid particular attention to the idea of making it easy for people intending to enjoy leisure activities to understand what types of behavior are dangerous and what kind of caution is required, and so designed the leaflets with prominent illustrations so that people reading them could understand their content at a glance.

We received a request to send the leaflets to the Shiga Prefecture Marine Safety Association at Lake Biwa, and they are being distributed to and utilized by participants in training for small marine craft licenses. When we hear of such activities, we feel a strong sense of satisfaction and have the heartfelt wish for marine accidents in leisure areas, not just at Lake Biwa but in all ocean and marine areas, to be eliminated.

Trilogy of Leisure Boat Leaflets



*We received a request from the Marine Sports Foundation to cite the content and illustrations from the leaflets our office has created, and posters like this one have been distributed.

We would like to continue engaging in the creation of such leaflets so that maritime safety can be preserved, and to disseminate information appropriately and as necessary.



Illustration displayed at Nishikinohama Park in Kaizuka City, Osaka

5 Mobile Version of J-MARISIS: Toward Expanding Users

For the effective utilization of published marine accident reports, the JTSB began providing the Japan-Marine Accident Risk and Safety Information System (J-MARISIS) as an Internet service from the end of May 2013, allowing users to conduct searches of reports from maps. In April 2014, we also released the global version of J-MARISIS, further allowing users to search investigation reports published by overseas marine accident investigation organizations from world maps.

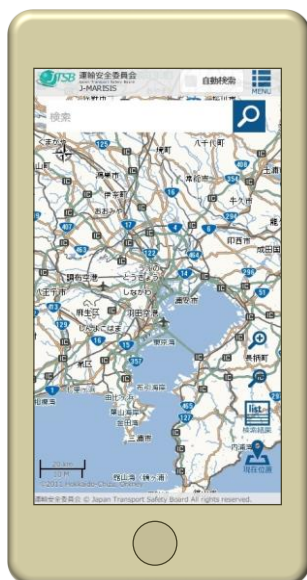
The number of people using the Internet on smartphones, tablets and other mobile terminals has been increasing in recent years, and after receiving requests to make this system easier to use on mobile terminals, we released the mobile version of J-MARISIS at the end of June, 2015.

With touch panel support as well as revised display buttons and layouts, its ease of use has been increased and by using the GPS functions of mobile terminals, it is able to display information on areas near to the user's current location.

It is possible to view the same content, including accident information, as the conventional PC version, so users on small vessels such as pleasure boats or fishing vessels can easily use their smartphones or tablets to check information on accidents in areas of water they are intending to navigate to, and we hope that it will be useful in promoting safe ship operation.



URL http://jtsb.mlit.go.jp/hazardmap/mobile/index_en.html



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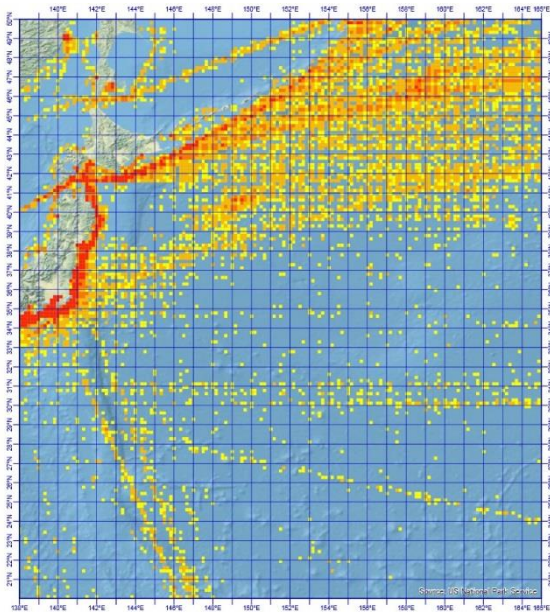


Screen displaying information near to the user's current location, using GPS functions



Screen displaying accident information

Column About Ship Density According to the Space-based Automatic Identification System Experiment
 Director for Analysis, Recommendation and Opinion



With cooperation from the Japan Aerospace Exploration Agency (JAXA), the JTSB is in the process of having ship density maps created from the results of the Space-based Automatic Identification System Experiment (SPAISE*).

Data had previously been collected in alternating weeks using the Small Demonstration Satellite #4 (SDS-4), but with the operation of Daichi #2 (ALOS-2) which started from 2015, data can be collected every day, greatly increasing its precision.

The diagram to the left is a ship density map released on our website, of marine traffic over the one-year period of 2015. In addition to this, we are also releasing ship density maps of information for each quarter (ship density becomes higher in the sequence yellow → orange → red).

By clicking the “Links” on the J-MARISIS, the “☆ Links (Navigation Information, etc.)” displayed in the field below them can be used to jump to the ship density map page, so please feel free to view them (only available in Japanese).

We will continue to listen to the opinions and requests of our users and intend to apply them to enrich this content even further. Thank you for your support.

*Space-based Automatic Identification System Experiment “SPAISE”

<http://www.satnavi.jaxa.jp/experiment/spaise/>

6 Outreach lectures (dispatch of lecturers to seminars, etc.)

The Japan Transport Safety Board launched a series of outreach lectures in April 2014, as part of its efforts to raise awareness on the work of the Board, and to create an opportunity for collecting the feedback and opinions of the general public.

Seminars that lecturers can be dispatched to cover topics that are useful in preventing or mitigating damage from aircraft, railway, and marine accidents. Members of the staff are dispatched as lecturers to various seminars and schools.



Scene of an outreach lecture

We can provide flexible support for the content of lectures, such as by incorporating content to match the needs of participants, based on courses chosen by requesting groups.

Please refer to the website of the Japan Transport Safety Board on application procedures.

<http://www.mlit.go.jp/jtsb/demaekouza.html> (in Japanese)

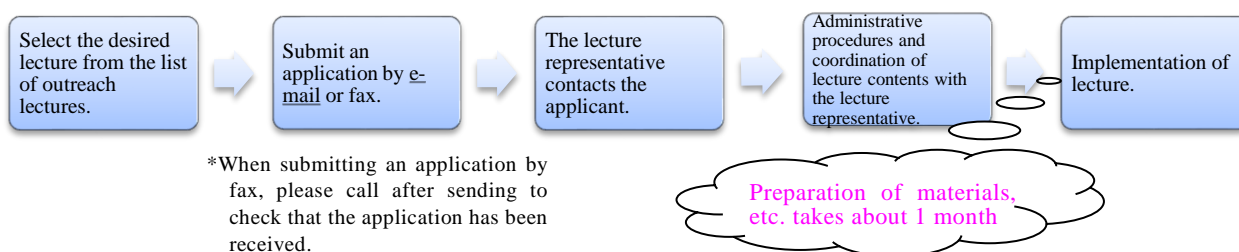
List of outreach lectures

No.	Course	Main audience	Contents
1	About the Japan Transport Safety Board	General (High school students and older), transportation businesses, etc.	Easy-to-understand explanation about the organizational background, work, etc. of the Japan Transport Safety Board
2	What is accident investigation?	Elementary school students	Easy-to-understand explanation about accident investigation for elementary school students and older
3	About aircraft accident investigation	General (High school students and older), aviation businesses, etc.	Easy-to-understand explanation about aircraft accident investigations, including the background, concrete examples, etc.
4	About railway accident investigation	General (High school students and older), railway businesses, etc.	Easy-to-understand explanation about railway accident investigations, including the background, concrete examples, etc.
5	About marine accident investigation	General (High school students and older), maritime businesses, etc.	Easy-to-understand explanation about marine accident investigations, including the background, concrete examples, etc.
6	About the JTSB Digests	General (High school students and older), transportation businesses, etc.	Introduction to case studies of accidents and explanation of various statistical materials across various modes, based on the JTSB Digests that have been issued to date.
7	About the JTSB Digests (Analyses of Aircraft Accidents)	General (High school students and older), aviation businesses, etc.	Explanation about various themes taken up in the analyses of aircraft accidents in the JTSB Digests.
8	About the JTSB Digests (Analyses of Railway Accidents)	General (High school students and older), railway businesses, etc.	Explanation about various themes taken up in the analyses of railway accidents in the JTSB Digests.

9	About the JTSD Digests (Analyses of Marine Accidents)	General (High school students and older), maritime businesses, etc.	Explanation about various themes taken up in the analyses of marine accidents in the JTSD Digests.
10	Trends in the occurrence of marine accidents, and preventing recurrence	General (High school students and older), maritime businesses, etc.	Schematic explanations about risks and waters where marine accidents frequently occur using the J-MARISIS, and explanations about accident prevention methods.
11	Analysis digests of regional offices (marine accident-related) [each regional office in Hakodate, Sendai, Yokohama, Kobe, Hiroshima, Moji, Nagasaki, and Naha]	General (High school students and older), maritime businesses, etc.	Explanations on each topic regarding analysis digests from regional offices. *Lists can be found by clicking the link below. http://www.mlit.go.jp/jtsb/bunseki-kankoubutu/localanalysis/localanalysis_new.html

*No. 11, in principle, is restricted to requests from the areas under the jurisdiction of the local office.

Flow chart from application to implementation of lecture



7 Activities of the Accident Victim Information Liaison Office

The Japan Transport Safety Board gives full consideration to the emotions of the victim and their families, as well as bereaved families. In addition to providing information on accident investigations in an appropriate manner at the appropriate time, a contact point for providing accident investigation information to victims, etc. was established in April 2011 with the aim of providing attentive response to opinions and feedback. Furthermore, in order to promote the provision of information, the Accident Victim Information Liaison Office was established under the directive of the organization in April 2012. Contact points for the provision of information were also set up in local offices to provide integral support alongside with Tokyo.

In 2015, information on accident investigation and other matters was provided to 61 persons, including the victims, of 29 cases of aircraft/railway/marine accidents.

The status for other activities is as follows.

○ Memorials for accident victims

2015 was a significant memorial year that marked the passage of 30 years since the crash of Japan Airlines Flight 123 on Mount Osutaka, 15 years since the Eidan subway Hibiya Line train derailment, and 10 years since the JR Fukuchiyama Line derailment and the Takenotsuka level crossing accident. To express our deepest sympathy for those lost in these accidents, the JTSD presented offerings of flowers from the Board members and Director-General at each accident site.

By presenting these memorial offerings first-hand, we deeply felt the emotions of those who still

have painful memories of these events, and renewed our awareness of the importance of closely sharing the feelings of bereaved families and victims.



Prayer at the altar for flowers at the Mount Osutaka crash site



Prayer at the altar for flowers at the Takenotsuka level crossing accident site

- Participation in “Memorial and Safety Meeting 2015” for the derailment accident on the JR Fukuchiyama Line

On April 25, 2015, the “Memorial and Safety Meeting 2015: The Importance and Significance of Railway Safety – ‘10 Years of Joint Accident Verification’” was held to mark the 10th year since the April 25, 2005 Fukuchiyama Line derailment accident.

The meeting included speeches by members of bereaved families as well as by experts, and although 10 years have passed since the accident, there are still questions of whether there may be points remaining that should be verified, and we reaffirmed the importance of providing information related to our investigations, starting with the provision of accident investigation reports to victims and bereaved families.



Scene of a speech

The Accident Victim Information Liaison Office hands out “Contact Information Cards” to victims of accidents.

The Office receives inquiries and consultation about the accident investigations from victims and families of accidents, as well as bereaved families. Please feel free to contact the following where necessary.

Contact Information Cards

**Information for
Victims and their Families**

Japan Transport Safety
Victims and their Families
Liaison Office

Japan Transport Safety Board

(Front)

Japan Transport Safety Board
Victims and their Families
Liaison Office

2-1-2 Kasumigaseki, Chiyoda,
Tokyo, Japan 100-8918

Tel: +81-3-5253-8823 Fax: +81-3-5253-1680
e-mail: jtsb_faminfo@mlit.go.jp

Japan Transport Safety Board

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