Chapter 6 Information dissemination for accident

1 Information dissemination for accident prevention

The Japan Transport Safety Board prepares and issues various publications as well as individual reports, regarding specific cases so that it can better understand the efforts being made to prevent recurrence and contribute to accident prevention.

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

The e-mail magazine distribution service is being used by people, including aviation, railway, and ship-related businesses, government agencies, and educational and research institutions.

Moreover, we are exchanging opinions with business operators and other parties regarding how the JTSB should disseminate its information and an effective and appropriate dissemination method. Also in the future, we will make improvements based on opinions we receive.

JTSB Website



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 2022, we released two issues of "JTSB Digest" (January and March: Issue Nos. 38 and 39).

The contents of the issues are as follows.

(1) JTSB Digest No. 38 [Collection of Analysis of Marine Accidents] "Toward the Prevention of Collisions of Recreational Fishing Vessels" (issued on January 18, 2022)

Regarding collisions of recreational fishing vessels which have been increasing in recent years, we have analyzed their factors by the recognition status of the other ship and by the navigation status and recommended important points toward their prevention, not only by calling for the installation of a radar or the use of a simplified AIS and AIS application, but also for keeping a proper lookout at all times.

- Occurrence status of marine accidents in which people died or went missing
- Presentation of the accident case: When a recreational fishing vessel was sailing back to port, she continued to navigate with a blind spot on the bow and collided with a blind spot on the bow and collided with a drifting pleasure boat



- Presentation of the accident case: When a recreational fishing vessel and a pleasure boat were navigating while looking at the fish-finder, they came close and collided with each other
- Presentation of the accident case: When a recreational fishing vessel was drifting with her attention centered on the state of anglers, she was late in noticing an approaching fishing vessel and collided with it
- Column: Proposals for accident prevention from the perspective of lecturers at training courses for recreational fishing vessel operators, etc.

(2) JTSB Digest No. 39 [Collection of Analysis of Aviation Accidents] "~ For Enjoying the Sky Safely ~ Safe Flight of Ultralight Planes" (issued on March 22, 2022)

Since there are many cases in which serious damage is caused such as casualties and injuries when an accident of an ultralight plane which is popular as leisure activity in the sky occurs, we have analyzed the occurrence factors of accidents to present the important points for enjoying the sky safely.

- · Occurrence status of accidents and damage caused by ultralight planes
- Matters to bear in mind for enjoying the sky safely ~Analysis of factors considered to have been involved in the accident~
- · Presentation of accident cases: Inappropriately maneuvering
- Presentation of accident cases: Weather (wind)
- · Presentation of accident cases: Deficient knowledge, skills, and experience
- Presentation of accident cases: Malfunctions of aircraft and parts etc.

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 2022)

To prevent recurrence of accidents related to squid pole-and-line fishing vessels

Hakodate

(Main contents)

- Occurrence trend of accidents related to squid pole-and-line fishing vessels
- Collision accident cases
- · Fire accident cases
- Accident cases caused by falling asleep
- Summary

(Main contents)



J-MARISIS related to pleasure boats in Tokyo Bay

Yokohama

Kobe

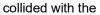
- Occurrence status of accidents related to pleasure boats in Tokyo Bay
- Trends and cases of accidents in six accident-prone sea areas in Tokyo Bay
- 1. Off Arakawa River (Sanmaisu): Grounding
- 2. Off Edogawa River: Intrusion into fishing facilities
- 3. Off Kisarazu City (Banzu): Grounding
- 4. Off Cape Futtsu: Intrusion into fishing facilities
- 5. Off Yasuda fishing port: Intrusion into fishing facilities
- 6. Near Cape Kannonzaki: Collision
- Summary



To prevent collision accidents of pleasure boats with port facilities at night

(Main contents)

- · Occurrence status of collision accidents with port facilities at night
- Case 1: While the ship was returning to port from a fireworks display, the master steered the ship only visually, and the ship collided with the breakwater.
- · Case 2: While the ship was returning to port from a fireworks display, the master made a wrong assumption, and the boat collided with a mooring pile.
- Case 3: When the master was maneuvering the ship while taking care of fellow passengers, the ship



breakwater.

· Points for accident prevention and damage reduction



To prevent accidents in diving fishery "Is your diving equipment safe?" (Main contents) Occurrence status of accidents related to diving fishery in Okinawa Prefecture Overview of diving fishery in Okinawa Prefecture Case 1: Failure of automatic unloader Case 2: Insufficient V-belt tension Matters to bear in mind for handling diving equipment

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 order to publicize the JTSB's general activities in 2021 and prevent the occurrence of accidents based on what was learned in past accidents, the JTSB issued the "JTSB Annual Report 2022" in March 2022.

As part of our efforts to provide information overseas, we issued the English version of the report "Japan Transport Safety Board Annual Report 2022" in September 2022. We did so to let people overseas know about the topics in this Annual Report.



5 Preparation of safety leaflet

The Japan Transport Safety Board prepares leaflets as needed in order to spread information contributing to safety when issuing the JTSB Digest. In 2022, with the publication of "For safe navigation of pleasure boats" as the web contents for safety enlightenment, we created a leaflet with a checklist for periodic check by briefly summarizing the web contents to make known them to many people.

We are proceeding with activities to promote and disseminate safety awareness actively through calling for cooperation of handing out these safety leaflets to related organizations.



Leaflet to make known the web contents for safety enlightenment "For safe navigation of pleasure boats"



To prevent collision accidents of pleasure boats with port facilities at night Kobe Office, Secretariat

The jurisdictional areas of the Kobe Office include sea areas such as the Seto Inland Sea and Wakasa Bay which are calmer than the open ocean and there are many marinas along these sea areas in which people enjoy leisure activity with pleasure boats.

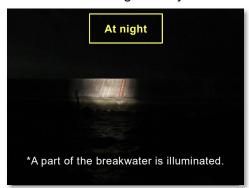
In addition, because of the spread of the new coronavirus, the popularity of marine leisure that can be enjoyed while avoiding crowds has been increasing, and the number of people who have acquireded the license to operate small boats such as pleasure boats has also been increasing.

On the other hand, 30 to 40 accidents involving pleasure boats occur every year, and it has been found that there is a high percentage of casualties in collision accidents with port facilities during night navigation.

In light of this situation, the Kobe Office has published an analysis digest of the investigations of past accidents so as to sail with pleasure boats safely.

Now, how does the view during night navigation differ from that during the day?





The two photos above are of the same breakwater. t is true that the breakwater is barely visible at night, isn't it?

"Even if you can sail the area by avoiding the breakwater during the daytime, what will happen if you sail at night without the knowledge on the existence or its exact location?

"Even if the boat is equipped with navigational instruments such as a GPS plotter, what will happen if you are unable to manage them?"

"What will happen if you increase your speed in the belief that you are safe because you are navigating the usual course?

You may collide with unseen "something" and end up in a tragic accident.

"The points you need to bear in mind as the captain of your own boat" learned as the occurrence factors from more than 500 accidents involving pleasure boats are described as safety measures in the analysis digest.

The Kobe Office has sent this analysis digest to about 150 marinas for dissemination and cooperation. It is our wish that users of pleasure boats read them and enjoy marine leisure safely and securely.



To allow gaining an easy understanding of "the sea areas in which accidents of the same type occur frequently" using the "J-MARISIS"

Yokohama Office, Secretariat

There are several sea areas in Tokyo Bay where similar accidents involving pleasure boats have occurred frequently. We have engaged ourselves in the preparation of the analysis digest local office edition in which their occurrence status, accident cases, causes and recurrence prevention measures are summarized.

Based on a collation between the "J-MARISIS" and the sea areas in which accidents of the same type occur frequently, three more places other than the sea areas on which information calling for attention has been currently issued and classified as the sea areas in which accidents of the same type occur frequently have been newly found. Therefore, with the publication of the analysis digest, we have added "Information Calling for Attention" as below to "Off Arakawa River (Sanmaisu)", "Off Kisarazu City (Banzu)" and "Near Cape Kannonzaki" as new sea areas in the "J-MARISIS".

We did not only send the analysis digest to marinas in Tokyo, Chiba, and Kanagawa, the Japan Marine Recreation Association, and the Kanto Small Boat Safety Association, but also made public relation to the press. As a result, an introductory article was published in the local edition of national news papers and Japan Coast Guard Newspaper as an initiative of the JTSB.

We will continue to provide easy-to-understand information useful for accident prevention and safety improvement through the publication of the analysis digest local office edition in the future.

Trends of and measures for the sea areas where "Information Calling for Attention" has been newly added

Collection of analyses 荒川沖 (三枚洲): 乗揚 △乗揚 ○事故の傾向 浅瀬の存在は知っていたものの、そ の拡延状況を正確に把握せずに浅瀬 に乗揚 浅瀬を示す標識の内側を航行したこ とにより浅瀬に乗揚 三枚溯付近の水深 (電子海図より抜粋) 注意喚起情報 荒川河口付近では乗揚事故に注意 荒川河口付近には、浅瀬が多く多 数の乗揚事故が発生している 荒川河口を航行する場合は、海図 等で事前に水路調査を行い安全に航 -2m 行可能な水路を航行すること 水深は、その場所の最大干瀬時の水面の高さを示す。



Accident trends: Accidents caused by the fact that despite the existence of shallow waters was known, its extension was not understood accurately to ground.

Measures: Use nautical charts before starting to sail in order to conduct a hydrographic check of the sea area to navigate and create a safe navigation plan.





Accident trends: Grounding caused by the fact that the existence of seaweed farming facilities or shallow waters was not known, causing ships to ground

Grounding caused by the fact that the installation period of seaweed farming facilities was not known

Measures: Recognize that there is a time period when seaweed farming facilities are installed, and yachts and motorboats, obtain information on the installation of seaweed farming facilities from reference books and the MDA Situational Indication Linkage (Umishiru), and input the location information into a GPS plotter.

Users are advised to stay away from the seaweed farming facilities.





Accident trends: Collision caused by not noticing approaching ships while paying attention to the movements of other ships.

Collision caused with small vessels, especially mini-boats and rowboats.

Measures: During the navigation, the person who steers the ship should keep a lookout at all timed without paying attention only to obstacles on one side.

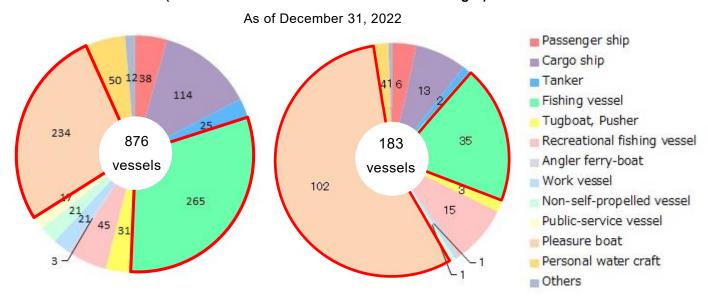
The person who steers the ship should keep a lookout of the surrounding without concentrating only on fishing, even while drifting.

6 Dissemination of information to prevent accidents involving pleasure boats and fishing boats

Regarding the number of ships by ship types involved in marine accidents occurred in 2022 and investigated by the JTSB, the highest number was that of fishing vessel with 265 (30.3%), followed by pleasure boats with 234 (26.7), and these two types of ships account for about 60% of the total.

Regarding the number of ships by ship types involved in ship incidents occurred in 2022, the highest number was that of pleasure boats with 102 (55.7%), followed by fishing boats with 35 (19.1%) and these two types of ships account for about 70% of the total.

Number of ships involved in marine accidents and incidents occurred in 2022 (Accidents on the left and Incidents on the right)



In addition, the number of accidents involving small boats with less than 20 tons of the marine accidents investigated by the JTSB reached 678 mainly including pleasure boats and fishing vessels and accounted for 64.0% to the total number of marine accidents investigated.

In light of this situation, the JTSB did not only post the web contents "For safe navigation of pleasure boats" in which information on the prevention of pleasure boat accidents is summarized (see Section 7 in this chapter (p.128) for details) on the JTSB website in April 2020, but also issued the analysis digest local office editions "To prevent collision of pleasure boats with port facilities at night" in June 2022 (Kobe Office), "J-MARISIS related to Pleasure Boats in Tokyo Bay" in July (Yokohama Office), "To prevent recurrence of accidents related to squid pole-and-line fishing vessels" (Hakodate Office) and "To prevent accidents in diving fishery. Is your diving equipment safe?" (Naha Office) in August (see Section 3 in this chapter (p.121) for details), with a view to strengthen the efforts to disseminate information to prevent accidents involving pleasure boats and fishing vessels.

7 Website in which information on the prevention of pleasure boat accidents is summarized \sim For safe navigation of pleasure boats \sim

In April 2020, the JTSB posted the web contents "For safe navigation of pleasure boats" in which information on the prevention of pleasure boat accidents is summarized on its website.

As shown in Section 6 in this chapter, the number of accidents involving pleasure boats accounts for as large a proportion as about 30% of all marine accidents. In addition, in terms of the number of accident ships by accident type of pleasure boats, collisions between pleasure boats and other ships accounted for about 40% of the total by accident type, and incidents due to non-navigability, such as the engine failure, deficient fuel, etc, account for about 90% of the total by incident type.

Under the circumstances, in order to prevent accidents caused by pleasure boats, we decided to provide accident prevention measures, such as daily check before departure, use of radar, AIS, etc. during the



Web page of "For safe navigation of pleasure boats"

sailing, together with cases of accident investigation on this website. In addition, not only information of each sea area which requires precautions during the sailing using the "J-MARISIS" published on the website is posted, but also the overview and method of use of the "Small ship - Engine Trouble Search System (S-ETSS) are posted on the website. Users of pleasure boats are recommended to use the information as an aid for accident prevention (see Section 8 in this chapter (p.139) and subsequent pages).

8 J-MARISIS - Now even easier to use

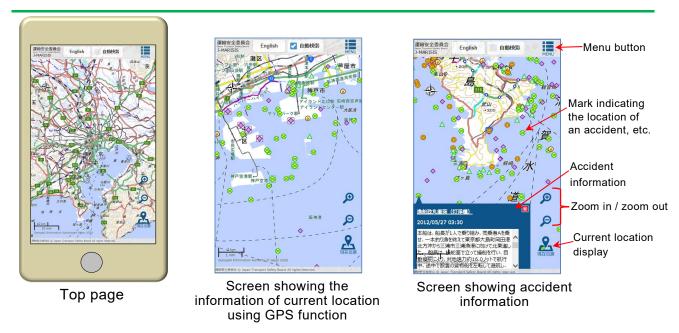
With the aim to allow the published Marine Accident Report to be made effective use of, the JTSB started to provide the "J-MARISIS" as an internet service in which the report can be searched from the end of May, 2013.

Given the increase in the number of people using the Internet on mobile terminals, as well as requests to make this system easier to use on smartphones and tablets, 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 the GPS functions of mobile terminals can be used to display information on areas near the user's current location. As a result, users on pleasure boats, recreational fishing vessels or other small vessels can easily check information on accidents and other relevant information on navigation in sea areas they are planning to visit.

船舶事故八ザードマップ 『モバイル版』 地図から探せる事故とリスクと安全情報 とこて、どんな ●あが名こうているか りとめたのかります。 プレジャーボート、遊漁船など 小型船舶のユーザーのみなさんへ ● GPS電車を用用して、現在場内はの機中を表示します。 ● MEDの文庫で海田のではなくもりかります。 ● MEDの文庫で海田のではなくもりかります。

J-MARISIS https://jtsb.mlit.go.jp/hazardmap/mobile/index.html



 The service can be used free of charge, excluding the connection fee. The traffic volume of ships and fishing points will also be indicated.

9 Engine Trouble Search System \sim Easy Search with Click \sim

The Japan Transport Safety Board established the Engine Trouble Search System (ETSS) in response to requests from people involved in maritime affairs for tools that can easily search and utilize accident investigation reports from engine trouble parts. This system has been available since April 2019.

ETSS is designed to search for marine accidents and incidents from engine failure parts and parts, and to use reports that are appropriate for the purpose of use. You can use ETSS free of charge, excluding the communication fees.

Engine Trouble Search System https://jtsb.mlit.go.jp/hazardmap/etss/

10 Small ship - Engine Trouble Search System $\,\sim\,$ Easy search of small vessel engine trouble $\,\sim\,$

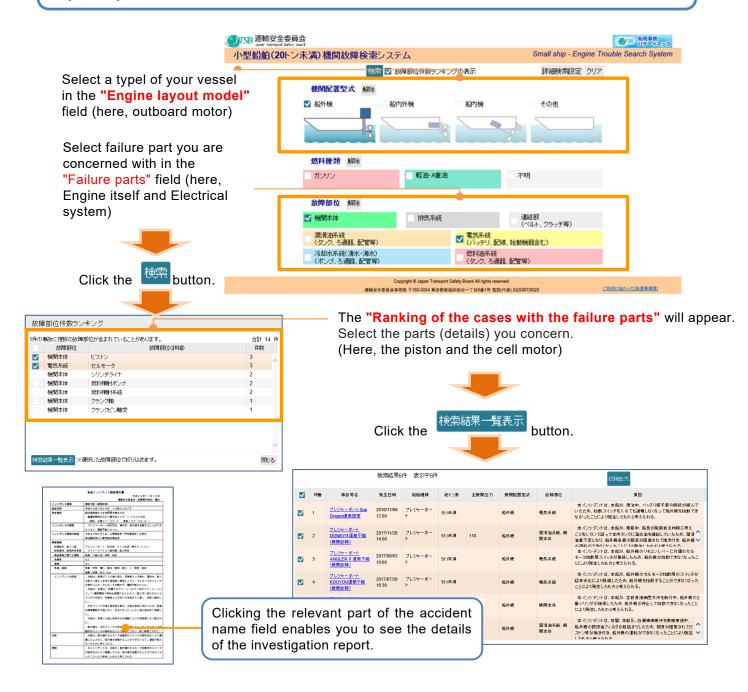
The Japan Transport Safety Board established the Small ship Engine Trouble Search System (S-ETSS) as an effective provision of information on accident prevention and safety for users of small vessels of less than 20 gross tons. This system has been available since April 2021.

Accidents and incidents involving small vessels account for many of the overall marine accidents and incidents investigateed by the JTSB. Among them, many cases are involved with small vessels from failure in handling, maintaining engines, etc. In order to enable easy search of small vessel accidents, the S-ETSS shows parts that are likely to be defective, matters to be checked before pre-departure, and periodic check items, etc. in a ranking format, and also enables users to see reports of individual accidents and incidents for more information.

Thus, this system can be used as reference to pre-departure and periodic checks for assumed engine failure, etc.

<Usage Example>

When searching an accident involving an engine itself and an electrical system in the engine layout of your vessel





Exhibition in events for pleasure boat users

Analysis, Recommendation, Opinion Office

With the aim to allow the published Accident Investigation Report to be made effective use of, the JTSB has created safety tools, including the J-MARISIS, JTSB Digest, analysis digest local office edition, and in order to make known these tools by as many people as possible, we exhibit at events for pleasure boat users to implement safety enlightenment activities.

The JTSB exhibits at the "Yokohama Floating Yacht Show" and "Yokohama Boat Fair" held every year between September and October. Although we gave up participating in the exhibition in 2021 due to the effect of the COVID-19 pandemic, we were able to exhibit at both events for the first time in two years. Exhibitors related to navigation from all over Japan gathered in both events, and during the events, a variety of events were held, including training for the renewal of the license for operating small boats, exhibitions and sales of marine equipment, exhibition on the sea of yachts and boats, demonstration cruise, etc.

We did not only give a demonstration of the J-MARISIS using tablet, but also distributed materials including the leaflet to present the web contents for safety enlightenment posted on the website, the collections of analyses of region version, etc, at the booth of the JTSB.



Demonstration of the Marine Accident Hazard Map at the booth of the JTSB



Aspect of the venue during the event

Many more people than originally expected, including not only people who use pleasure boats daily, but also those who had just obtained their licenses visited our booth during the event thanks also to the good weather. In addition, we could hear the opinions of those who actually use these contents, and thus, the event served as a good opportunity for us to conduct safety enlightenment activities in the future.

We hope that these events will serve as an opportunity for many people to learn about the activities of the JTSB and the safety tools we provide will help those who sail ships safely.

11 Website summarizing information on the prevention of level crossing accidents

\sim To prevent level crossing accidents from occurring \sim

In February 2021, the Japan Transport Safety Board posted the "To prevent level crossing accidents from occurring," summarizing information on the prevention of level crossing accidents, on our website.

Level crossing accidents comprise a large percentage (40.0%) of the overall railway operation accidents (in 2021). In particular, level crossings (classes 3 and 4) where automatic barrier machines are not installed have higher accident risk, comparing to level crossings (class 1) where level crossing safety equipment (automatic barrier machine, road warning device) is installed, therefore it is important to comply with rules when crossing level crossings, and also take measures, such as abolishing level crossings



Web page on "Preventing level cross accidents from occurring

without such safety equipment or installing such safety equipment (i.e., upgrading to class 1 level crossings).

The promotion of such measures needs to be understood by many people, including the users. Therefore, the JTSB has been calling for complying with the rules for crossing level crossings with slogans, e.g., "Stop, look, and listen" for users of level crossings. Moreover, for railway operators, road administrators, and other relevant parties, we provide examples of initiatives, e.g., abolishing level crossings, as references for proceeding with discussions and taking measures in order to prevent accidents, so we hope refering them to reduce level crossing accidents.

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

The Japan Transport Safety Board holds a series of outreach lectures as part of its efforts to raise awareness on the work of JTSB, 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 reducing damage from aircraft, railway, and marine accidents. The JTSB staffs are dispatched to or remotely participated in various seminars and schools as lecturers.

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.

For the application method, see the JTSB website.

https://www.mlit.go.jp/jtsb/demaekouza.html



Scene of an outreach lecture

List of outreach lectures

No.	Course	Main targets	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 JTSB
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 marine accident investigation (fire, explosion, engine failure)	General (High school students and older), maritime businesses, etc.	Explanation about marine accident investigations related to fire, explosion and engine failure, including the background, concrete examples, countermeasures, etc.
7	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.
8	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.
9	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.
10	About the JTSB 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 JTSB Digests.
11	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.
12	Analysis digests local office edition (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. https://www.mlit.go.jp/jtsb/bunseki-kankoubutu/localanalysis/localanalysis_new.html

*No. 12, in principle, is restricted to requests from the areas under the jurisdiction of the local office.

Flow chart from application to implementation of lecture



13 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 2022, information on accident investigation and other matters was provided to 71 persons, including the 13 cases of aircraft/railway/marine accidents.

In addition, we provided explanations to families concerned about the flooding of the passenger ship KAZU I occurred on April 23, 2022 before providing information to the Maritime Bureau of the Ministry of Land, Infrastructure, Transport and Tourism (see the page 128 in Chapter 5 for details) and publishing the interim report (see page 18 in Chapter 1 for details).

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 Board Victims and their Families Liaison Office

Japan Transport Safety Board

Japan Transport Safety Board Victims and their Families Liaison Office

15th Floor YOTSUYA TOWER 1-6-1 Yotsuya, Shinjuku-ku,

Tokyo, 161-0004

Tel: +81-3-5367-5030 Fax: +81-3-3354-5215 e-mail: hqt-jtsb-faminfo2021@gxb.mlit.go.jp

Hakodate Office: +81-138-43-5517 Sendai Office: +81-22-295-7313

Yokohama Office: +81-45-201-8396 Kobe Office: +81-78-331-7258

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Japan Transport Safety Board