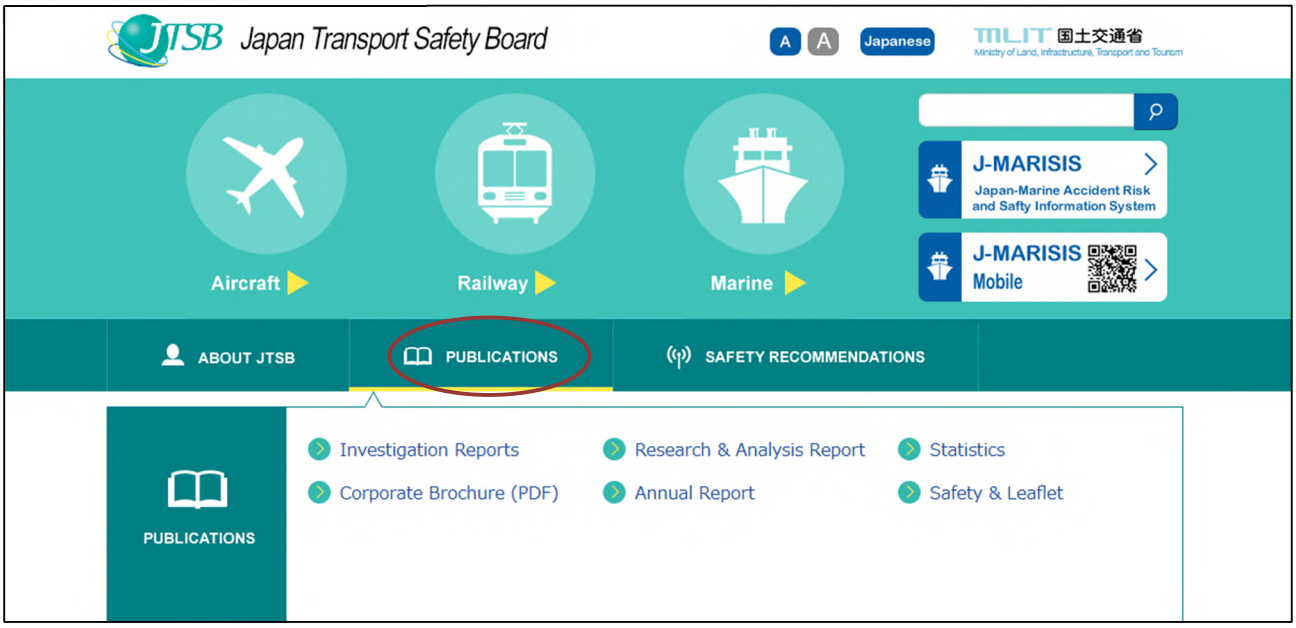
Chapter 6 Information dissemination for accident prevention

1 Information dissemination for accident prevention

The JTSB prepares various materials and web content in addition to individual investigative reports and disseminates related information on its website, to explain efforts to prevent recurrence more clearly and help prevent accidents. We will also inform you of the latest status of these issues through X (formerly Twitter) and e-mail newsletters.

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 reports statistics-based analyses, typical accident or accident cases requiring special attention, etc.

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

In 2024, we released four issues of “JTSB Digest” (March, April, November, and December: Issue Nos. 44 to 47).

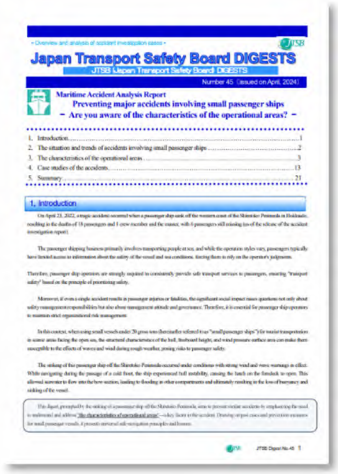
(1) JTSB Digest No. 44 [Digest of Aviation Accident Analyses] "-Preparing for sudden turbulence during flight- Preventing accidents caused by aircraft turbulence" (issued on March 26, 2024)

The Digest analyzes investigative reports of turbulence accidents that have occurred in the past 20 years up to 2023, and introduces necessary measures to prevent the recurrence of similar accidents, statistical analysis results, accident investigation examples, and airline efforts to prevent accidents.

- Occurrence of aircraft turbulence-related accidents
- Case studies and analysis of aircraft turbulence-related accidents
- Measures to prevent aircraft turbulence-related accidents
- Column "Efforts to reduce injury risks in the cabin"
- Column "Efforts to share real-time turbulence information utilizing new technologies"

The content of the digest was introduced in a news program in preparation for the peak summer vacation season.

(2) JTSB Digest No. 45 [Digest of Maritime Accident Analysis] [Preventing major accidents involving small passenger ships - Are you aware of the characteristics of the operational areas? -(issued on April 23, 2024)



In the passenger ship transportation business, passenger safety is the top priority, and appropriate operation is required at all times. Among them, small passenger vessels are susceptible to wind and waves in the event of stormy weather due to the structural characteristics of the hull and the freeboard height, which puts passengers safety at risk. In response, this issue clearly introduces the importance of understanding the characteristics of the weather, sea conditions, topography, and other characteristics of the operating sea area, which are prerequisites for appropriate operation at all times under an effective safety management system.

- The situation and trends of accidents involving small passenger ships
- The characteristics of the operational areas
- Case studies of the accidents
- Column "Operational standards", etc.

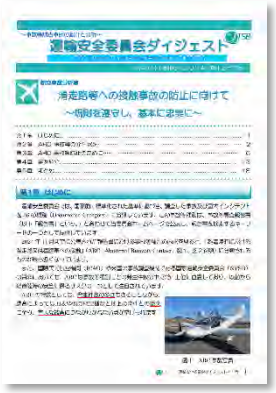
(3) No. 46 [Digests of Analyses of Railway Accidents] "Toward the Prevention of Railway Accidents Caused by Snow" (issued on November 26, 2024)

Railways are an indispensable means of transportation, regardless of weather conditions, but accidents caused by meteorological phenomena frequently include those caused by snow, and those occurring outside heavy snowfall areas. As well as presenting the actual situation of these issues, analyzes each issue, introduces the characteristics of accidents, current problems, and necessary measures, including actual accident cases.

- Status of occurrence of accidents due to snow and melting snow
- Characteristics of accidents and case studies of accident investigations
- Column "Measures to prevent railway driving accidents during snowfall," etc.

(4) No. 47 [Aviation Accident Analysis Digest] "Toward the Prevention of contact accidents with runways, etc. ~ Comply with the rules and stick to the basics ~" (issued on December 17, 2024)

This issue takes up the occurrence situation and investigates examples of contact with a runway or landing strip during takeoff and landing, which is the most common type of accident in the aircraft accident/serious incident investigative reports published to date and serious incidents (Abnormal Runway Contact: ARC), analyzes the causes of accidents and related factors, and introduces measures to prevent accidents, etc.



- Status of occurrence of ARC
- To prevent ARC
- Case studies and others

[Link to the page featuring the “JTSB Digests” Back Number]

https://jtsb.mlit.go.jp/bunseki-kankoubutu/jtsbdigests/jtsbdi_backnumber.html (Japanese)

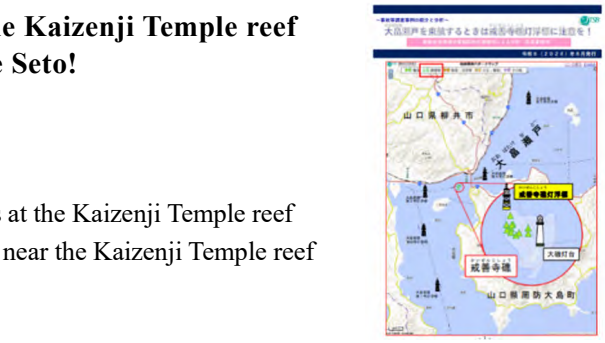
https://jtsb.mlit.go.jp/jtsbdigests_e.html (English)

3 Issuance of the Analysis Digest Regional Office Edition

The JTSB has issued the analysis digest in the regional office edition (only available in Japanese). It has issued this publication 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 in each responsible water area with characteristic features such as the sea area, vessel type, and accident type.

(Analysis Digest Regional Office Edition in 2024)

Hakodate	**Accidents of fatality/injury that occurred during fishing operations on the deck** (Main contents) ・Occurrence of accidents during fishing operations ・Cases of accidents during fishing operations ・Matters to prevent recurrence and mitigate damage ・Conclusion	
Yokohama	**Hazard map of pleasure boat-related accidents in Ise Bay and Mikawa Bay** (Main contents) ・Introduction of the Marine Accident Hazard Map ・Occurrence of pleasure boat-related accidents, etc. ・Causes, measures to prevent recurrence, and cases of accidents in marine areas where accidents occur frequently ・Conclusion	
Kobe	**Points for preventing marine accidents and incidents in Lake Biwa** **To enjoy water sports safely** (Main contents) ・Occurrence of marine accidents and incidents in Lake Biwa ・Introduction of ordinances in Lake Biwa ・Cases of accidents and incidents that occurred in Lake Biwa ・Points for preventing accidents and incidents in Lake Biwa	

Hiroshima	**Focus on the light buoy of the Kaizenji Temple reef when sailing east of Obatake Seto!** (Main contents) ・Obatake Seto ・Trends in grounding accidents at the Kaizenji Temple reef ・Accidents and incidents cases near the Kaizenji Temple reef ・Conclusion	
Moji	**Accident prevention with the proper use of GPS plotters** (Main contents) ・Involvement in GPS plotter usage in grounding accidents ・Accident cases ~ Progress and recurrence prevention ~ ・Conclusion - Toward accident prevention	
Nagasaki	**Prevention of collisions with fictitious facilities** (Main contents) ・Occurrence of accidents ・Factors causing accidents and prevention measures ・Conclusion	
Naha	**An episode of mold growing in fuel oil** (Main contents) ・Cases of blockage of the fuel oil piping system ・Growth of mold hyphae in fuel oil ・Measures to prevent recurrence of accidents and incidents caused by the growth of mold hyphae in fuel oil ・Conclusion	

[Analysis in regional offices]

https://jtsb.mlit.go.jp/bunseki-kankoubutu/localanalysis/localanalysis_new.html (Japanese)

As you read these regional office digests, you can not only find out the circumstances of local accidents, but can also gain some tips for accident prevention. The regional offices will make further efforts to regularly issue the analysis digest regional office editions. By doing so, they will ensure that you will be provided with more satisfactory content.

4 Issuance of the JTSB Annual Report

To publicize the JTSB's general activities in 2023 and prevent the occurrence of accidents based on what was learned in past accidents, the JTSB issued the "JTSB Annual Report 2024" in March 2024.

As part of our efforts to provide information overseas, we issued the English version of the report "Japan Transport Safety Board Annual Report 2024" in November 2024 in order to let people overseas know about the topics in this Annual Report.

[Japan Transport Safety Board Annual Report]

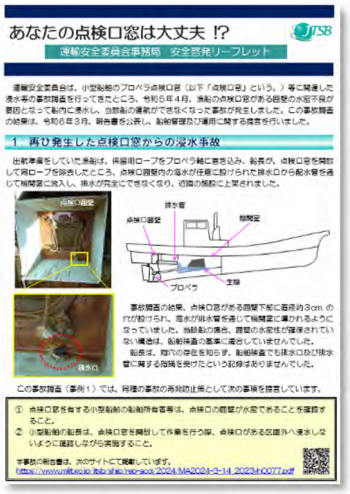
https://jtsb.mlit.go.jp/bunseki-kankoubutu/jtsbannualreport/jtsbannualreport_new.html (Japanese)

https://jtsb.mlit.go.jp/jtsbannualreport2024.html (English)

5 Preparation of safety leaflet

The JSTB creates leaflets that concisely summarize information useful for accident prevention, in addition to posting information on the website, we also distribute it to related parties through related organizations and attendees of outreach lectures ("9 Outreach lectures (dispatch of lecturers to seminars, etc.)" page 125), and disseminate information that contributes to everyone's safety through proactive safety awareness and public awareness activities.

In March 2024, in response to a marine accident in which the engine room was flooded via a propeller inspection hole window opened by the master during departure preparations, we issued an opinion to the Fisheries Agency regarding measures to be taken, given that there have been 15 similar accidents to date. In line with this, we have prepared a leaflet to inform many people of the dangers of flooding through the inspection hole window.



Safety leaflet
"Is your inspection window okay!?"

[Safety leaflet]

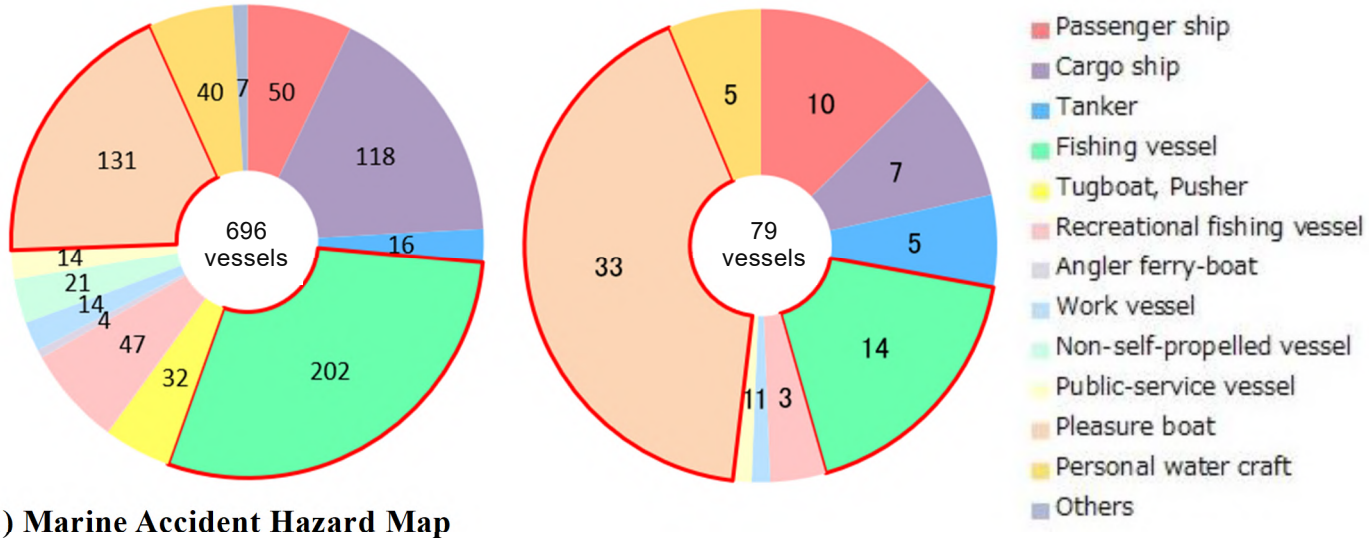
https://jtsb.mlit.go.jp/keihatuleaflet.html (Japanese only)

6 Dissemination of information to prevent marine accidents

Regarding the number of vessels by ship type involved in marine accidents in 2024 and investigated by the JTSB, two types of vessels comprise nearly 50% of the total, namely fishing vessels with 202 (29.0%), as the most common category, followed by, and pleasure boats with 131 (18.8%).

Next, regarding the number of vessels by ship type involved in marine incidents in 2024, the same two types of vessels also comprised nearly 60% of the total, namely pleasure boats with 33 (41.8%), as the most common, and category, followed by fishing vessels with 14 (17.7%).

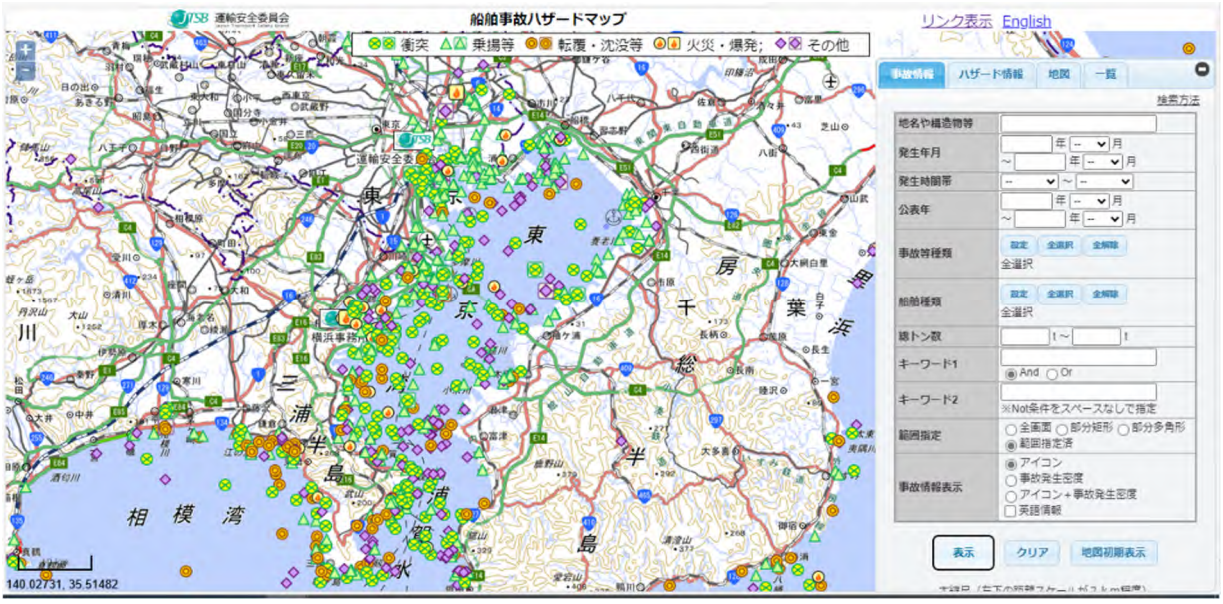
Number of ships involved in marine accidents and incidents occurred in 2024
(Accidents on the left and Incidents on the right)



(1) Marine Accident Hazard Map

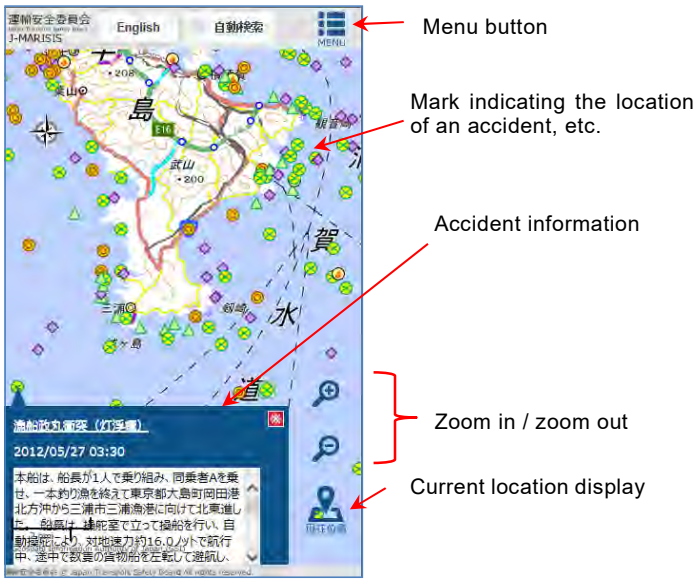
The JTSB has published a "Marine Accident Hazard Map", allowing users to search and display accident locations, types, and summaries based on the accident investigative reports that have been published to date, so that it can be visually confirmed where and what kind of accident has occurred.

[Marine Accident Hazard Map] Example of search and display screen from the website]



Besides the web version, a mobile version of the marine hazard map is also available for operators to use on-site. In the Mobile Version of the Marine Accident Hazard Map features touch panel-compatible buttons and layout for improved usability, and it uses the mobile device's GPS function to display information near the users' current locations, making it easy for users of small vessels such as pleasure boats and recreational fishing vessels to check accident information and navigation-related information for the intended navigation areas.

[Mobile Version of Marine Accident Hazard Map] Awareness leaflet and example of display screen



(2) Engine Trouble Search System

Of the marine accidents having occurred in 2024 and investigated by the JTSB, looking at the number of accidents involving medium- and large-sized vessels with a gross tonnage of 20 tons or more by ship type, two types of vessels comprised about 70% of the total, namely 122 cargo ships (53%), as the most common, and category, followed by 33 passenger ships.

In terms of accident type, collisions and groundings comprised about 70% of the total, namely 91 collisions at 43% and 52 groundings at 25%.

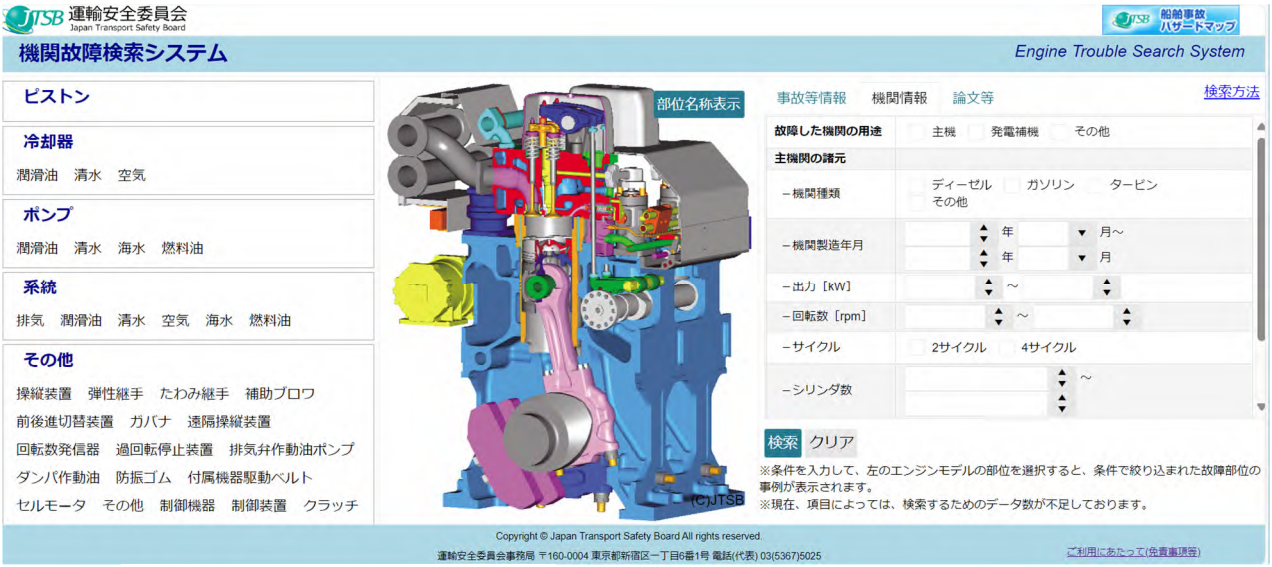
In addition, with regard to medium- and large-sized vessels of 20 gross tons or more, 25 incidents were due to poor engine maintenance and loss of power supply. Incidents such as loss of propulsion can often lead to serious secondary disasters, so it is important to prevent the recurrence and occurrence of such incidents in addition to the above-mentioned accidents.

Accordingly, to prevent accidents affecting medium- and large-sized vessels of 20 gross tons or more, ship owners and operators have also published the "Engine Trouble Search System (ETSS)" in addition to the digests and analysis digest regional office edition provided by the JTSB.

The Engine Trouble Search System (ETSS) has been built and operated by the JTSB since April 2019 in response to a request from maritime officials to search for and utilize related accident investigative reports for accidents caused by engine failure parts and components. The system allows users to easily view the desired accident investigative report by searching for the engine part or component on the web

screen Engine Trouble Search System.

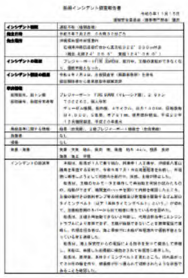
Example of use of [Engine Trouble Search System (ETSS)]



Select the parts of the engine you want to search from **"Information on accidents and incidents"** or **"Information on engine"**

"Cases where the specified part is broken" will appear.

By clicking on the relevant part of the accident and incidents name, etc., you can view the investigative report.



Furthermore, the JTSB provides an overview of the usage of the Small Ship Engine Trouble Search System (S-ETSS), which allows users to search for accidents involving specific engine types or parts of small ships of 20 gross tons or less. The JTSB encourages the organic use of these resources to help prevent accidents.

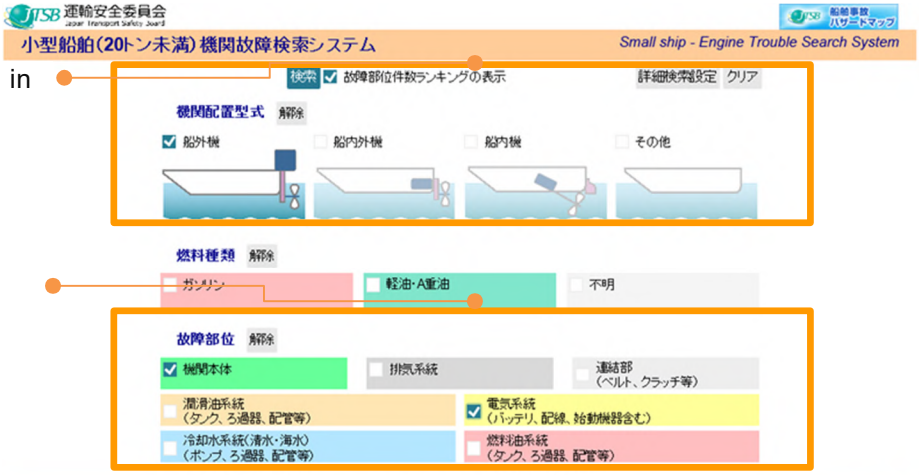
[Small ship Engine Trouble Search System (S-ETSS)] Usage examples

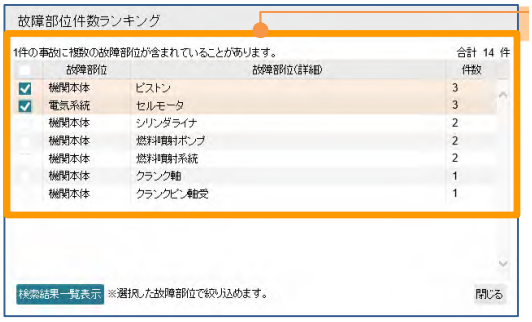
When searching an accident involving an engine itself and an electrical system in the engine layout of your vessel

Select a type of your vessel in the "Engine layout model" field (here, outboard motor)

Select failure part you are concerned with in the "Failure parts" field (here, Engine itself and Electrical system)

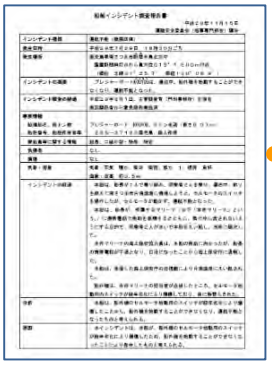
Click the 検索 button.





The "Ranking of the cases with the failure parts" will appear. Select the parts (details) you concern. (Here, the piston and the cell motor)

Click the 検索結果一覧表示 button.



Clicking the relevant part of the accident name field enables you to see the details of the investigative report.

(3) For Safe Navigation of Pleasure Boats

Of the marine accidents and incidents that occurred in 2024 and were investigated by the JTSB, pleasure boats were involved in just under 20% of accidents such as collisions and groundings, while incidents such as loss of control or navigation obstruction comprised a large proportion of 40% or more of cases. Accordingly, as part of efforts to help prevent the recurrence and occurrence of such incidents, the content "For Safe Navigation of Pleasure Boats" is always published on the website with a banner displaying, including points on pre-departure inspections, maintenance, and lookout methods, as well as warning information for each sea area. We are striving to strengthen the dissemination of information on safety awareness in addition to updating publications such as digests, analysis digest regional office edition, safety awareness leaflets, and web search systems such as hazard maps.

"For Safe Navigation of Pleasure Boats" page

* The Marine Accident Hazard Maps introduced here are available free of charge. (Communication charges apply.)

[Marine Accident Hazard Map]

https://jtsb.mlit.go.jp/hazardmap/ (Japanese)

https://jtsb.mlit.go.jp/hazardmap/index_en.html (English)

[Japan Transport Safety Board - Engine Trouble Search System (ETSS)]

https://jtsb.mlit.go.jp/hazardmap/etss/ (Japanese)

[Japan Transport Safety Board - Small ship Engine Trouble Search System (S-ETSS)]

https://jtsb.mlit.go.jp/hazardmap/s_etss/ (Japanese)

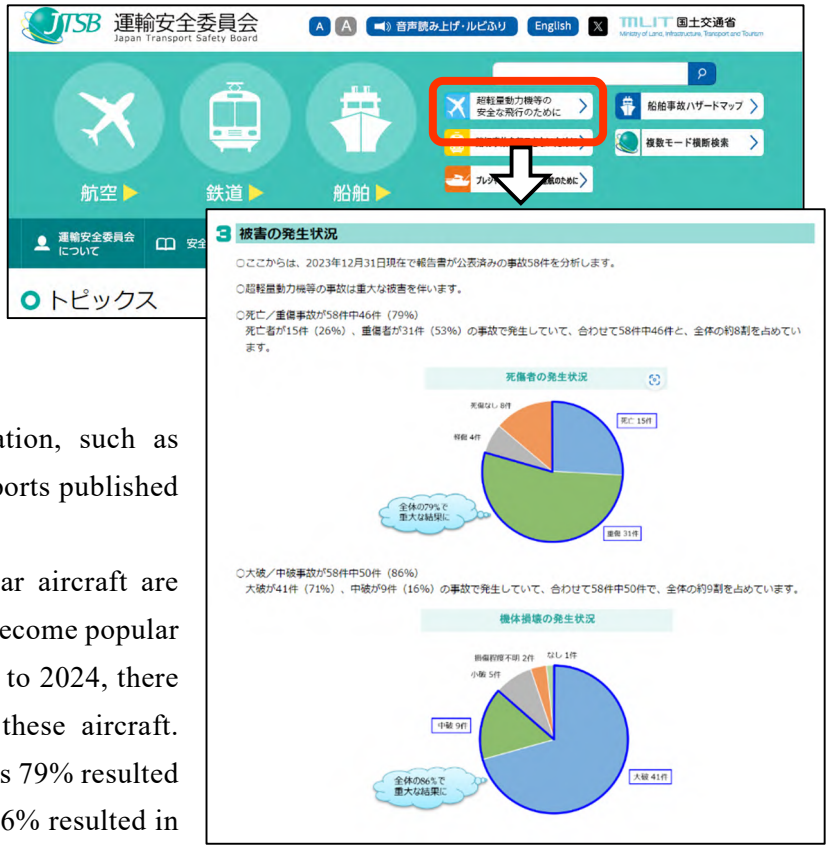
[For Safe Navigation of Pleasure Boats]

https://jtsb.mlit.go.jp/guide/pleasure.html (Japanese)

7 Website summarizing information on the prevention of aircraft accidents —For safe flight of ultralight planes and other aircraft

On February 27, 2024, the content of the special page "For safe flight of ultralight planes and other aircraft" has been updated, which summarizes information on the prevention of accidents involving ultralight aircraft, gyroplanes, and self-built aircraft published on the JTSB's website.

We have added the latest information, such as analytical results of investigative reports published up to 2023.



Banner and part of the contents from the special page

In addition, ultralight and similar aircraft are simple-structured aircraft that have become popular for sky leisure activities. From 2001 to 2024, there have been 59 accidents involving these aircraft. Among these accidents, the damage is 79% resulted in fatalities or serious injuries, and 86% resulted in destroyed or substantially damaged to the aircraft. This rate is higher than that of small aeroplanes and helicopters, indicating that ultralight aircraft and similar aircraft accidents lead to more severe consequences.

In order to prevent accidents, it is effective to reduce risks by focusing on the underlying factors (safety risks) that lead to the causes of accidents and avoiding the situations that cause them. This special page highlights the main factors contributing to accidents (inappropriate piloting, weather (wind) influences, lack of knowledge, skill, or experience, issues with the aircraft or parts, and improper inspections, maintenance, and assembly that causes the issues) identified from analyzing accident investigative reports. It introduces safety points along with case studies of accidents.

Please note that this special page will be updated periodically with new information. Use it as a reference to enjoy safe flying.

[For Safe Flight of Ultralight Planes and Other Aircraft]

https://jtsb.mlit.go.jp/guide/microlight.html (Japanese only)

8 Website summarizing information on the prevention of level crossing accidents —To prevent level crossing accidents from occurring

In March 2024, the JTSB updated the content of the "To prevent level crossing accidents from occurring," summarizing information on the prevention of level crossing accidents, on our website.

We have added the latest information, such as analytical results of the investigative reports published up to 2024.

Level crossing accidents comprise a large percentage (33.0%) of the overall railway operation accidents (in 2022).

In particular, level crossings (classes 3 and 4) where crossing gates are not installed have higher accident risk, comparing to level crossings (class 1) where level crossing safety equipment (crossing gate, 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 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 recommend referring them in order to reduce level crossing accidents.

[To prevent level crossing accidents from occurring]
https://jtsb.mlit.go.jp/guide/fumikiri.html(Japanese only)

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

The JTSB 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 from 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.

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. In 2024, a total of 23 outreach lectures were conducted, including those held by regional offices.

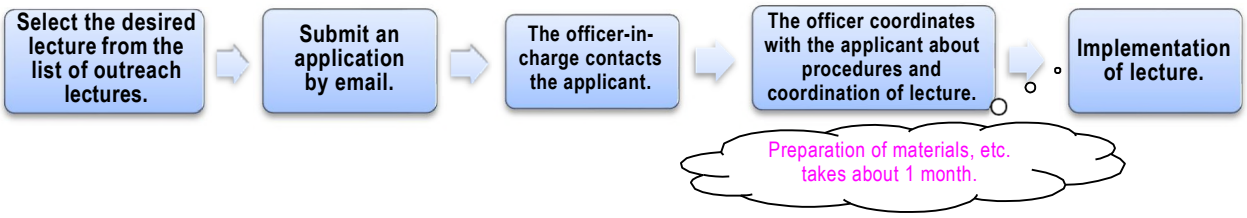
List of outreach lectures

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 and older	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 regional 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 regional office.

Flow chart from application to implementation of lecture



[Link to the page for outreach lectures]

From the link below, you can check the list of outreach lectures, how to apply for them, and the past records by year.

https://jtsb.mlit.go.jp/demaekouza.html (Japanese only)

10 Activities of the Accident Victim Information Liaison Office

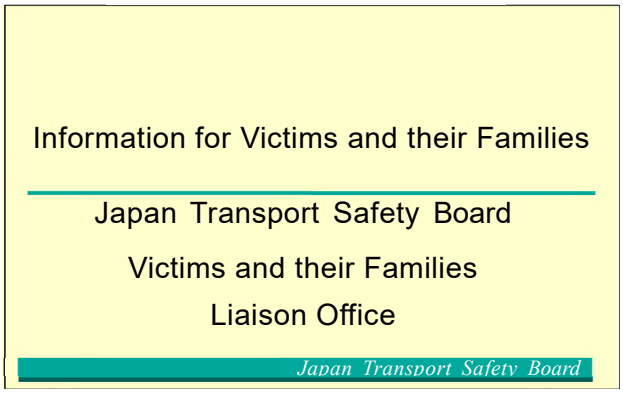
The JTSB gives full consideration to the emotions of the victim and their families, as well as bereaved families. In addition to providing information on accident investigations in an appropriate manner at the appropriate time, a contact point for providing accident investigation information to victims, 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 regional offices to provide integral support alongside with Tokyo.

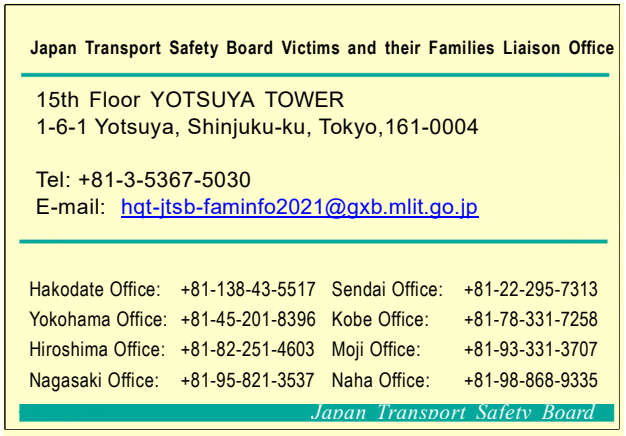
In 2024, information on accident investigation and other matters was provided to 17 persons, including the 11 cases of aircraft/railway/marine accidents.

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 Card>

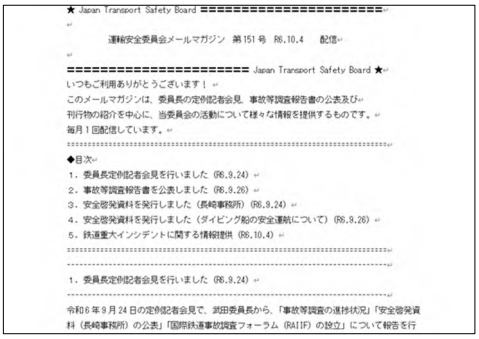




11. Dissemination of information through e-mail newsletters and official SNS

Once a month, the JTSB distributes the "JTSB E-Mail Magazine" in text format to subscribers to inform them of the latest activities, such as the publication of accident investigative reports and the introduction of various publications.

In addition, to disseminate information more promptly, the JTSB has opened an official account on X and is disseminating information on a daily basis. For more information, see "Bridge to Safety" (page 148).



★ Japan Transport Safety Board ==========

運輸安全委員会メールマガジン 第151号 R6.10.4 配信

========== Japan Transport Safety Board ★

いつもご利用ありがとうございます！

このメールマガジンは、委員長の定例記者会見、事故等調査報告書の公表及び刊行物の紹介を中心に、当委員会の活動について様々な情報を提供するものです。

毎月1回配信しています。

◆目次

1．委員長定例記者会見を行いました（R6.9.24）

2．事故等調査報告書を公表しました（R6.9.26）

3．安全啓発資料を発行しました（長崎事務所）（R6.9.24）

4．安全啓発資料を発行しました（ダイビング船の安全運航について）（R6.9.26）

5．鉄道重大インシデントに関する情報提供（R6.10.4）

1．委員長定例記者会見を行いました（R6.9.24）

令和6年9月24日の定例記者会見で、武田委員長から、「事故等調査の進捗状況」「安全啓発資料（長崎事務所）の公表」「国際鉄道事故調査フォーラム（RAIIF）の設立」について報告を行

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