

# 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

The screenshot shows the JTSB website interface. At the top, there is a navigation bar with the JTSB logo and text '運輸安全委員会 Japan Transport Safety Board'. To the right, there are links for '音声読み上げ・ルビふり' and 'English'. Below the logo, there are three large circular icons representing '航空' (Aviation), '鉄道' (Railway), and '船舶' (Ship). A search bar is located on the right side of the header. Below the icons, there are several utility links: '船舶事故ハザードマップ', '踏切事故を起こさないために', and '取扱説明書'. The main navigation bar contains links for '運輸安全委員会について', '安全へのツール', '安全情報', '報道・会見', '業務改善の取り組み', and '申請・お知らせ'. The '安全へのツール' link is circled in red. An orange arrow points from a text box to the '申請・お知らせ' link. The '安全へのツール' dropdown menu is open, displaying a list of resources: '運輸安全委員会ダイジェスト', '運輸安全委員会年報', '過去の刊行物', '地方事務所における分析', '安全啓発リーフレット', and 'IMO (国際海事機関) における海上事故分析'.

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 2021, we released one issue of "JTSB Digest" (October: Issue No. 37).

The contents of the issue is as follows.

JTSB Digest No. 37 [Marine accident analysis digest] "Toward the prevention of collision accidents of small vessels - Let's use Automatic Identification System (AIS) -" (Published October 26, 2021)

The digest recommends points such as calling for the use of the AIS, and keeping appropriate watch at all times for the prevention of collision accidents especially involving small vessels and pleasure boats, e.g., analyzing actual investigated cases.

- The situations of the occurrences of marine accidents where a person died or went missing
- Investigated accident case: During a return voyage, the fishing vessel was navigating with a blind spot in the bow direction, and collided with another navigating fishing boat
- Investigated accident case: When the fishing vessel continued to navigate, paying attention to fishing, she collided with the other wandering fishing vessel
- Investigated accident case: Two vessels collided with each other without noticing the existence of the other boat during their navigations, keeping their course and speed
- Questionnaire results on the effects of the AIS equipment, etc.







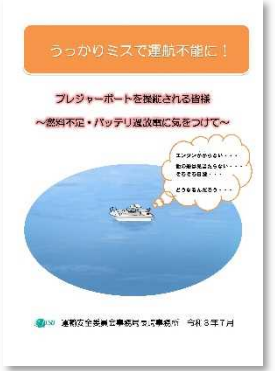

### 3 Issuance of the Analysis Digest Local Office Edition

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 2021)

<p>Hakodate</p>	<p><b>For the prevention of marine accidents in which people fall overboard</b></p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Situation for casualties in accidents involving fishing vessels</li> <li>· Situation for falling overboard</li> <li>· Life jacket wearing status of fallen overboard persons</li> <li>· Situation for locations where accidents occurred</li> <li>· Situation for hitting bodies to ship hulls</li> <li>· Accident cases of falling overboard</li> <li>· Measures to prevent the recurrence of similar accidents</li> </ul>	
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<p>Yokohama</p>	<p><b>Situation for occurrence of dragging anchor accidents in Tokyo Bay</b></p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Situation for occurrence of the dragging anchor accidents</li> <li>· Case 1: Unable to ensure sufficient anchor hold power</li> <li>· Case 2: Inappropriate anchoring location</li> <li>· Case 3: Not noticing the dragging anchor of the vessel</li> <li>· Summary: For the prevention of accidents caused by anchors dragged due to typhoons, etc.</li> </ul>	
<p>Kobe</p>	<p><b>For the prevention of accidents of recreational fishing vessels and fishing ferries!</b></p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Analysis of accidents involving recreational fishing vessels, etc. in the jurisdiction of Kobe Office</li> <li>· Case 1: The recreational fishing vessel collided with the other vessel while navigating, assuming there were no other vessels on her course</li> <li>· Case 2: When the recreational fishing vessel oscillated after riding the wave while navigating, a fishing visitor got injured</li> <li>· Case 3: When fishing visitors were boarding the fishing ferry at the rocky shore, a fishing visitor was caught between the ferry and the rocks and got injured</li> <li>· Points to prevent accidents and mitigate damage</li> </ul>	
<p>Hiroshima</p>	<p><b>Look around even when the vessel is anchored!!</b> - Dangers hidden in wandering and anchored vessels -</p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Situation analysis of wandering and anchored vessels</li> <li>· Case in which wandering Vessel Z collided with navigating Vessel Y</li> <li>· For the prevention of similar accidents</li> </ul>	

<p>Moji</p>	<p><b>J-MARISIS of the Kanmon Strait and the Sea of Hibiki</b>  <b>- Present situation for small vessel accidents in the Kanmon Strait and the Sea of Hibiki and prevention of recurrence-</b></p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Situation for occurrence of small vessel accidents in the Kanmon Strait and the Sea of Hibiki</li> <li>· Column: What is the J-MARISIS</li> <li>· Probable causes, measures to prevent the recurrence of similar accidents, and accident cases in the sea area where accidents occur frequently</li> </ul>	
<p>Nagasaki</p>	<p><b>Vessel operation disabled due to a simple mistake!</b></p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Situation for occurrence of pleasure boat accidents, etc.</li> <li>· Situation for occurrence of disabled vessel incidents (fuel shortage, battery over discharge)</li> <li>· Case 1: The remaining amount of fuel has not been checked</li> <li>· Case 2: The fuel consumption has not been known</li> <li>· Case 3: The fuel reserve tank has not been loaded</li> <li>· Case 4: Multiple electronic devices have been used while the engine was being stopped</li> </ul>	
<p>Naha</p>	<p><b>Do you know the typhoons and wind changes in Okinawa?</b>  <b>- Typhoons have more power nowadays and it is hard to forecast their courses, so "Do not try to do operation even under the not-so-serious level of typhoon" -</b></p> <p>(Main contents)</p> <ul style="list-style-type: none"> <li>· Accident case during the approach of the typhoon</li> <li>· Wind types <ul style="list-style-type: none"> <li>Spring: Wind change in February</li> <li>Summer: South wind of the summer solstice</li> <li>Fall: New north wind</li> <li>Winter: North blow</li> </ul> </li> </ul>	

**Beware of the dangerous north blow in Okinawa!**

(Main contents)

- Situation for occurrence of marine accidents or incidents according to the statics data
- Monthly situation for occurrence of marine accident and incidents
- Situation for occurrence of marine accidents with the north wind involved, and more
- Basic knowledge on waves caused by winds
- Situation for occurrence of accidents
- Location where the accident occurred
- Accident cases, and more



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.


**Column**

**Issuance of analysis digest by local office editions,  
"Typhoons and wind changes in Okinawa" and  
"Beware of the dangerous north blow in Okinawa!"**

**Naha Office, Secretariat**

In Okinawa located in the area of passing typhoons, powerful typhoons approach or strike Okinawa almost every year, seriously impacting vessel operations. In August 2020, an accident occurred with a fishing vessel capsized and three crew members gone missing occurred while a typhoon was approaching. Moreover, many marine accidents occurred in winter according to the statistics even though Okinawa is strongly imaged with the summer sea. In three capsizal accidents and one grounding accident occurred sequentially in the short period between December 2020 to January 2021, it was revealed that the northward wind was the cause.

At the Naha Office, staff members have been exchanging opinions based on the tendency of the occurrences of marine accidents and characteristics of the sea area around Okinawa to decide on topics to be addressed in the local office digest to prevent the recurrence of similar accidents. For FY 2021, the members selected "typhoons" and "the north wind" for analysis topics, given the situations mentioned above.

To create the "Typhoons and wind changes in Okinawa" with typhoons selected as the theme, we had interviews with fishermen and the members of fishery cooperatives in Okinawa on the tendency of typhoons nowadays and the measures for typhoons. In particular, a very powerful typhoon struck the area of Daito Islands in September 2020. We were able to interview them immediately after the typhoon passed, allowing us to obtain valuable opinions, including information on their on-site troubles and the size of the impact of the typhoon. The opinions and the information helped us not only create the local office digest but also contribute to future accident investigations.

Regarding the "Beware of the dangerous north blow in Okinawa!" with the north wind selected as the topic, among 730 investigation reports of accidents and incidents created and published at Naha Office in the period from October 2008 when the Japan Transport Safety Board was established to September 2021, 84 accidents involving the north wind were analyzed on weather, wind power,



Providing explanation to the press



type of vessel, gross tonnage and the tendency of each accident type. Furthermore, the accident cases and the basic knowledge on the winds and waves are also included in its Digest to pay attention for when navigating the sea of Okinawa in winter.

The JTSB puts effort into making the issuance of the local office digest be noticed not only by on-shore persons concerned but also by persons who operate vessels at sea as directly as possible by creating and handing out posters to the people in fishery cooperatives, marinas and fisharinas, etc. In addition, we provided the opportunity to explain the content of the local office digest at the local press club and notified through news and newspaper articles.

Seasonal winds such as typhoons and the north wind are generated whenever the season comes every year, no one can avoid such natural phenomena, so the JTSB is planning to use such local office digests for dissemination activities to prevent marine accidents.



Posters for dissemination



## Use of the "J-MARISIS" to easily understand the "difficult parts of the sea"

Moji Office, Secretariat

In July 2020, a pleasure boat collided with the breakwater at the entrance of Dokai Bay in Kita-Kyushu City, Fukuoka Prefecture. The investigation result revealed that the probable cause was that the master kept navigating the boat without knowing the existence of the breakwater nor knowing that she was approaching the breakwater in the night when it was hard to see the breakwater.

Moreover, four collision accidents occurred already at the breakwater since the JTSB was established, and they occurred in the similar situation as this accident without noticing they were approaching the breakwater in the night or before dawn when the breakwater was hard to see.

If the master had known that it was a place with higher hazard of collision with the breakwater because four accidents, this accident could had been avoided by carefully navigating the boat after confirming the location of the breakwater in advance or while confirming her location using a GPS plotter.

Thus, the JTSB decided to post information for calling attention in the "J-MARISIS" to let persons related to pleasure boats, etc. know that "the vicinity of the breakwater is dangerous and is a 'difficult point of the sea' from the standpoint of the situation for the occurrence of the accidents" in an easy-to-understand manner.

Indicating the "difficult point of the sea from the standpoint of the accidents" is also one of the original purposes of the "J-MARISIS."

Moreover, since it was revealed that the jurisdiction of Moji Office had sea areas where many other accidents occurred, the JTSB considered information for calling attention to five sea areas, including this breakwater, in the Kanmon Strait and the Sea of Hibiki, and posted the information on the "J-MARISIS."

Furthermore, in addition to the information for calling attention, the JTSB published the situation for occurrence of accidents in this sea area and the summarized accident cases as the local office digest.

When selecting sea areas and considering information for calling attention, we paid attention to the following:

○ Selection of sea areas

In the sea areas where many accidents occurred, measures such as installing beacons have already been taken by the relevant administrative organs, etc. For the sea areas where no accident has occurred recently, the JTSB examined its reasons to help select the sea areas.





○ Information for calling attention

The JTSB decided to describe characteristics of sea areas, if any, to make persons concerned understand "why is this sea area dangerous."

In addition, the JTSB we considered the opinions of persons related to small vessels and marine leisure when selecting sea areas and creating the contents that call for attention.

The JTSB will proceed with considering information for calling attention to "difficult points in the sea" of other sea areas (the Sea of Genkai, West Kyushu, and South Kyushu) as well as putting effort to disseminate these items of information for calling attention in cooperation with persons concerned.



#### 4 Issuance of the JTSB Annual Report

In order to publicize the JTSB's general activities in 2020 and prevent the occurrence of accidents based on what was learned in past accidents, the JTSB issued the "JTSB Annual Report 2021" in July 2021.

As part of our efforts to provide information overseas, we issued the English version of the report "Japan Transport Safety Board Annual Report 2021" in December 2021. 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 2021, we prepared a leaflet summarizing examples of utilization in order to disseminate information on the Small ship - Engine Trouble Search System to many people when the system was published.

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.

**遊漁船・漁船の安全運航のために**  
～機関故障関連事故等の防止～

機関及び配管系統別の事故等の発生傾向

遊漁船・漁船（総トン数20トン未満の小規模船）における主機、排気機、配管系統、電気系統、排気機等の故障又は不具合による事故及びインシデント（機関故障関連事故）を故障又は不具合を生じた機種及び配管系統（原因機種）別に分類しました。

<b>電気系統</b> 20%	火災の原因となることが多い 電気機器、排気機蓋が使用不可
<b>主機・排気ガス系統</b> 17%	ピストン、シリンダライナ、クランク軸等が損傷していることが多い
<b>プロペラ・軸系統</b> 14%	プロペラロープ、網が絡む事例が多い
<b>海水系統</b> 8%	海水事故の原因、海水配管系統に注意
<b>潤滑油系統</b> 8%	直ちに機関故障となるケースが多い

**機関故障を防ぐために発航前点検をしましょう**

・主機本体の故障は保守整備水準による開放整備、その記録が重要です。  
・火災事故では電気系統に起因した事例が多く、電気配線の劣化に気づいたら交換、電気機器の交換が求められれば点検することをお願いします。  
・海水系統による漏水を防ぐため、機関室のビムジの網や過度な溶体材料に注意しましょう。必ず見回りの項目に取り入れましょう。  
・こし器内部や潤滑油中に水分やスラッジがあったり、燃料油の臭いが出たり、汚れがひどい場合には油を新鮮にして、原因を調べましょう。

**定期点検及び保守整備をしましょう**

点検や保守整備を実施した際、実施日、実施内容をチェックリストに記録してください（紙または電子）が重要です。

**※実施の「定期点検チェックリスト（機関故障）」（別）をご覧ください。**

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For the safe navigation of recreational fishing vessels and fishing vessels  
– Prevention of accidents and incidents involving an engine trouble

S-ETSS  
Small Ship Engine Trouble Search System

JTSC 運輸安全委員会  
Japan Transport Safety Board

**小型船舶 機関故障検索システム**

プレジャーボート、漁船など小型船舶のユーザーのみならずへ過去の事故例から事故を未然に防ぎましょう。

発航前点検を確実に  
エンジン故障を防ぎましょう!

- 機種配置型式 (船外機、船内機等) から
- 燃料種類 (ガソリン、軽油等) から
- 故障部位 (機種本体、排気系統等) から

それぞれ検索が可能

[https://jtsb.mlit.go.jp/hazardmap/s\\_etss/](https://jtsb.mlit.go.jp/hazardmap/s_etss/)

出航前にぜひ確認していただき、安全運航のためにご利用ください。

Leaflet for disseminating the Small ship - Engine Trouble Search System

## 6 J-MARISIS – Now even easier to use

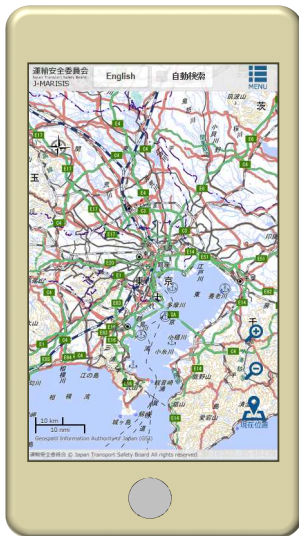
So that more effective use can be made of published marine accident investigation reports, the Japan Transport Safety Board began providing the Japan-Marine Accident Risk and Safety Information System (J -MARISIS) as an Internet service from the end of May 2013, allowing users to search reports from 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.

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 boats or other small vessels can easily check information on accidents and other relevant information on navigation in sea areas they are planning to visit.



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



Top page



Screen showing the information of current location using GPS function



Screen showing accident information

- ← Menu button
- ← Mark indicating the location of an accident, etc.
- ← Accident information
- ← Zoom in / zoom out
- ← Current location display

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

The Japan Transport Safety Board welcomes your views, requests and other comments/communication from users of J-MARISIS.

Please use the "Contact us" section of our website.

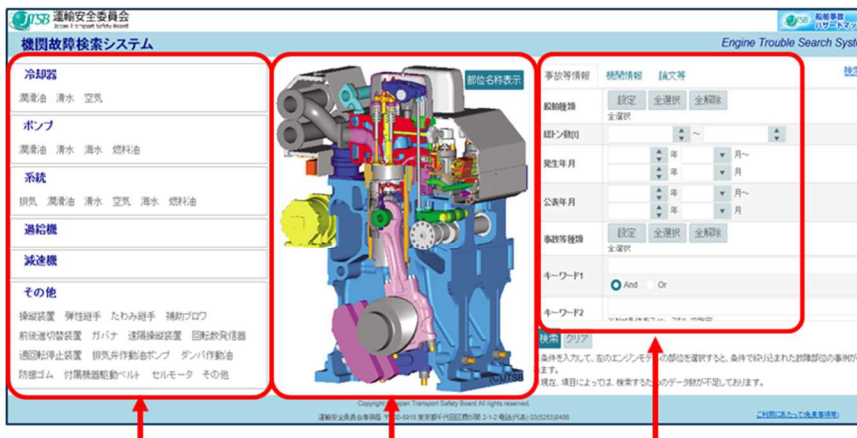
Contact us <https://www.mlit.go.jp/jtsb/toi.html>

## 7 Engine Trouble Search System ~ Easy Search with Click ~

The Japan Transport Safety Board (JTSB) 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 other than internet communication fees.

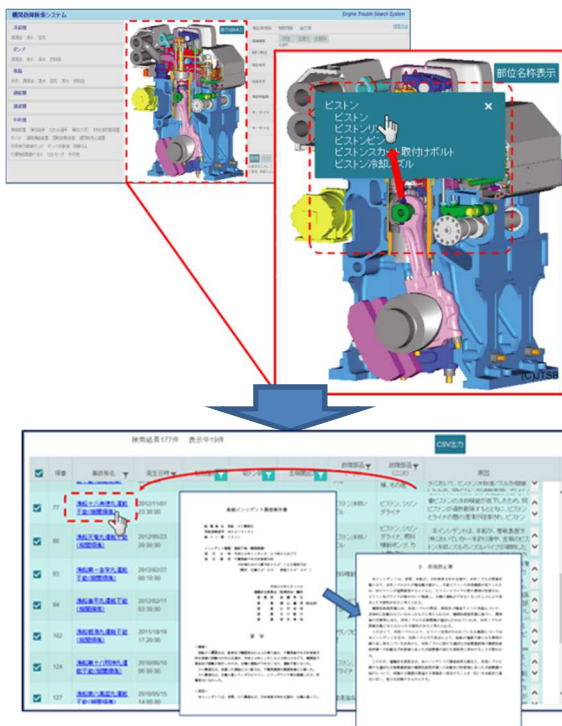
Engine Trouble Search System <https://jtsb.mlit.go.jp/hazardmap/etss/>



You can look at it from the place, the appearance, or the condition

### <Usage Example>

As part of the engine was overheated, select the place (piston part) and investigate the case of trouble



- ① When you select the piston part in the appearance view, the part related to the piston part is displayed in more detail. Select to display a list of related reports.
- ② If the number of cases is large, it can be narrowed down by ship type, gross tonnage, output, damaged parts, cause, etc. By selecting "fishing boat," a gross tonnage of "1 - 20 tons," and an output of "400 - 500", and refine your research, the phrase "The cooling function was deteriorated, and the piston of the equipment expanded due to overheating." was discovered.
- ③ You can find and use reports that may be relevant.



## 8 Small ship - Engine Trouble Search System ~ Easy search of small vessel engine trouble ~

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 more than 60% of the overall marine accidents and incidents handled by the JTSB. Among them, many cases are involved with crippled vessels from failure in handling, maintaining engines, and so on.

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 inspection 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 inspections 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

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

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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

故障部位件数ランキング

1件の事故に複数の故障部位が含まれていることがあります。 合計 14 件

故障部位	故障部位(詳細)	件数	
<input checked="" type="checkbox"/>	機関本体	ピストン	3
<input checked="" type="checkbox"/>	電気系統	セルモータ	3
<input type="checkbox"/>	機関本体	シリンダライナ	2
<input type="checkbox"/>	機関本体	燃料ポンプ	2
<input type="checkbox"/>	機関本体	燃料供給系統	2
<input type="checkbox"/>	機関本体	クランク軸	1
<input type="checkbox"/>	機関本体	クランクピン軸突	1

検索結果一覧表示 ※選択した故障部位で絞り込みます。 閉じる

検索結果6件 表示中6件 CSV出力

項目	事故名	発生日時	船種	総トン数	主機原出力	機関配置型式	故障部位	原因	
<input checked="" type="checkbox"/>	1	プレジャーボート Sun Dragon 群馬県	2018/11/06 12:00	プレジャーボート	5t未満	船外機	電気系統	本インシデントは、本船が、運油中、バッテリー端子部の接続が緩んでいたため、起動スイッチを入れても発動しなかったため船外機を起動できなかったことにより発生したものと考えられる。	
<input checked="" type="checkbox"/>	2	プレジャーボート DOKKI 埼玉県	2017/11/28 14:00	プレジャーボート	5t未満	110	船外機	潤滑油系統、機関本体	本インシデントは、本船が、操縦中、船長の視界が不明瞭な状態であったことにより発生したものと考えられる。本インシデントは、本船が、船外機のエンジンオイルに付着したセルモータの油泥がエンジンオイルに混入したため、船外機が起動できなくなったことにより発生したものと考えられる。
<input checked="" type="checkbox"/>	3	プレジャーボート ANGLER 千葉県	2017/09/03 10:00	プレジャーボート	5t未満	船外機	電気系統	本インシデントは、本船が、船外機のセルモータ接続用のスイッチが正常動作しなかったため、船外機を起動できなかったことにより発生したものと考えられる。	
						船外機	機関本体	本インシデントは、本船が、千葉県津波西沖沖合航行中、船外機の2番シリンダが故障したため、船外機が停止して発動できなくなったことにより発生したものと考えられる。	
						船外機	潤滑油系統、機関本体	本インシデントは、本船が、自漕艇津波西沖沖合航行中、船外機の2番シリンダが故障したため、船外機が停止して発動できなくなったことにより発生したものと考えられる。	

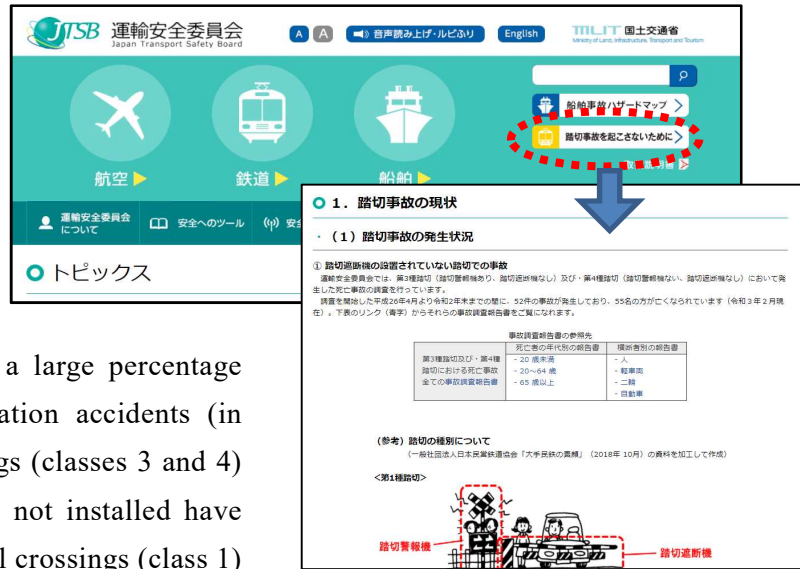
Clicking the relevant part of the accident name field enables you to see the details of the investigation report.

## 9 Website summarizing information on the prevention of level crossing accidents ~ To prevent level crossing accidents from occurring ~

In February 2021, the Japan Transport Safety Board established the webpage, entitled "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 (34.2%) of the overall railway operation accidents (in FY2021). 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 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 have 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 please refer to them to reduce level crossing accidents. (See Chapter 4 (page 91).)



Web page on "Preventing level cross accidents from occurring"

## 10 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 mitigating damage from aircraft, railway, and marine accidents. Members of the staff 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.



Scene of an outreach lecture



For the application method, see the Japan Transport Safety Board website.

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

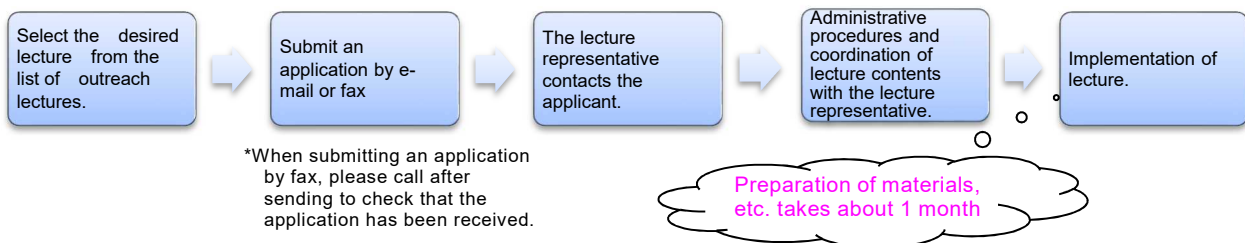
#### List of outreach lectures

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 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 of regional offices (marine accident-related) [each	General (High school students and older),	Explanations on each topic regarding analysis digests from regional offices. *Lists can be found by clicking the link below.

regional office in Hakodate, Sendai, Yokohama, Kobe, Hiroshima, Moji, Nagasaki, and Naha]	maritime businesses, etc.	<a href="https://www.mlit.go.jp/jtsb/bunseki-kankoubutu/localanalysis/localanalysis_new.html">https://www.mlit.go.jp/jtsb/bunseki-kankoubutu/localanalysis/localanalysis_new.html</a>
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\*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



### 11 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.

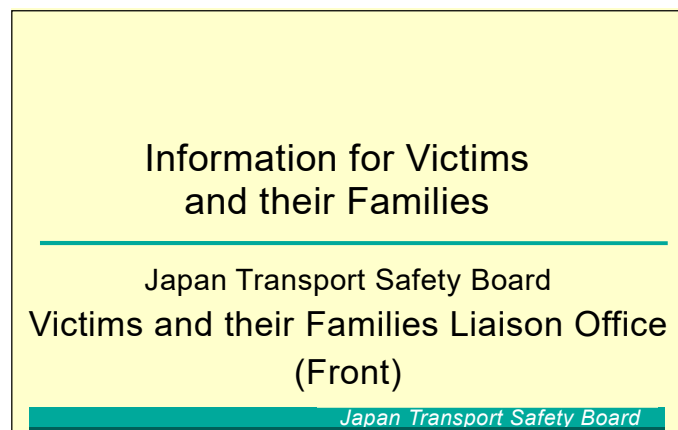


In 2021, information on accident investigation and other matters was provided to 78 persons, including the 17 cases of aircraft/railway/marine accidents.

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 Cards



Column

Information dissemination for prevention of collision accident of small vessels

Accident Prevention Analyst

The Japan Transport Safety Board not only investigates aircraft, railway, and marine accidents and incidents and causes of their damage, but also comprehensively analyzes investigation reports and data accumulated to date, and recommends various safety measures in the "JTSD Digests."

Most recently, in October 2021, the JTSD issued the JTSD Digest No. 37, "Toward prevention of collision accidents of small vessels - Use Automatic Identification System (AIS) -" for the purpose of preventing collision accidents of small vessels and pleasure boats, which have occurred many times. In the Digest No. 37 the JTSD summarizes and analyzes actual cases collected from collision accident investigations on small vessels and pleasure boats, and recommends points for the prevention of collision accidents, e.g., calling for keeping appropriate watch all the time.

In addition, the JTSD held a questionnaire survey on the effect of the AIS. The digest includes the survey responses of vessel owners who use the simplified AIS, e.g., "The AIS makes us feel less afraid when other vessels are approaching" and "The AIS is useful for preventing collisions," to call for using the AIS to people concerned, and also introduces the situations of the demonstration experiments of a function to issue an alert for avoiding a collision using a smart phone application, which have been conducted by the Fisheries Agency.

The JTSD will continuously recommend measures that are useful for preventing accidents in an easy-to-understand manner and introduce related activities through issuing the JTSD Digests.

~事故等調査事例の紹介と分析~  
**運輸安全委員会ダイジェスト**  
 JTSD Digest (Transport Safety Board Digests)  
 第37号 (6月3日 (2021) 年 10月発行)

船舶事故分析集  
 小型船舶の衝突事故防止に向けて  
 -AISを活用しよう-

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 2. 発生状況..... 2  
 3. 死亡・行方不明者が発生した船舶間の衝突事故の事例..... 3  
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 5. まとめ..... 9

1. はじめに

運輸安全委員会が発足した平成 20 (2008) 年から令和 2 (2020) 年までに、死亡者、行方不明者が発生した船舶間の衝突事故 (以下「死亡・行方不明衝突事故」という。) を調査し、事故調査報告書を公表した事故は 104 件 (事故関係船舶 208 隻) あり、死亡・行方不明衝突事故による死者は 127 人、行方不明者は 38 人、合計 165 人となっています。

また、死亡・行方不明衝突事故に関係した船舶を船種別にみると、漁船が 95 隻 (45.7%)、プレジャーボートが 35 隻 (16.8%)、貨物船が 34 隻 (16.3%) などとなっています。(図 1 参照)

さらに、死亡・行方不明衝突事故に関係した船舶を総トン数別にみると、小型船舶 (20 トン未満) が 158 隻 (76.0%) を占めています。(図 2 参照)

そこで、本ダイジェストでは、小型船舶をはじめとする船舶間衝突事故の防止に向けて、事故の発生状況と事故事例とともに、AIS (船舶自動識別装置) の効果等を調査したアンケート結果を紹介し、事故防止に向けたポイントについてまとめることとしました。

図 1 死亡・行方不明衝突事故に関係した船舶における船種別の発生隻数

船種	発生隻数	割合
漁船	95	45.7%
プレジャーボート	35	16.8%
貨物船	34	16.3%
水上オートバイ	6	2.9%
その他	19	9.2%

図 2 死亡・行方不明衝突事故に関係した船舶における総トン数別の発生隻数

総トン数	発生隻数	割合
20 トン未満	158	76.0%
20 トン以上	50	24.0%

The JTSD Digest No. 37

3 両船が相手船に気づかず、針路及び速力を保持して航行中に衝突

事故の概要：A 船 (自動車運搬船、58.250 トン、22 人乗組み) が東北東進中、B 船 (漁船、19 トン、9 人乗組み) は南東進中、09 時 44 分ごろ、両船が衝突した。船長 B が行方不明となった。

事故の経緯

A 船	B 船
三船士 A (三船士 A、単独当番) は、しゅう雨に遭遇し、船首マストをわずかに視認できた状態まで視界が悪化した。	甲板員 B (単独当番) は、操縦室のレーダー画面上正横より前方に他船の映像を認めなかった。
三船士 A は、降雨の影響を受けたレーダー画面に他船の映像を認めず、AIS による他船の南緯表示がなく、大洋航海中であり、周囲に他船は	甲板員 B は、見張り室へ上がり、床板の上に寝た状態で AIS の画面を確認していた。右舷前方約 45° 方位に後方が壁面によって死角となった状態で見張りを続け続けた。

A 船の船首部と B 船の右舷中央部とが衝突

三船士 A は、降雨の影響を受けたレーダー画面に B 船の映像が映っていなかったことにより、B 船に気づかなかった。

甲板員 B は、見張り室で壁面による死角が生じた状態で目視による見張りを行っており、A 船が壁面による死角となる右舷前方約 83° から接近していたことにより A 船に気づかなかった。

甲板員 B は、レーダーの画面を確認することができず、レーダーの調整を許可されていなかった。

両船は、視界制限状態における自警信号を行っていなかった。

原因：本事故は、A 船が東北東進中、B 船が南東進中、しゅう雨によって視界制限状態となり、三船士 A 及び甲板員 B が、相手船に気づかなかったため、針路及び速力を保持して航行していたところ、A 船の船首部と B 船の右舷中央部とが衝突したことにより発生したものと考えられる。

再発防止に向けて (事故の防止対策)

- ・A 船の船舶管理会社は、視界制限状態が発生した場合、船橋当番乗員の増員を行うとともに、視界制限状態における自警信号を行うことを運航船舶の乗組員に周知徹底すること。
- ・B 船の船前乗組員は、視界制限状態が発生した場合、船長への報告及び船橋当番乗員の増員を行うとともに、視界制限状態における自警信号を行う体制を運航船舶に整備すること。また、運航船舶に AIS を装備することが望まれる。

本事故の調査報告書は委員会ホームページで公表しています。(2015 年平成 27 年 2 月 26 日公表)  
<https://www.ntsl.go.jp/jtsb/ohp/ken-wo-1/2015/04/01/5-3-1-201510018.pdf>

The page introducing an investigated accident case