

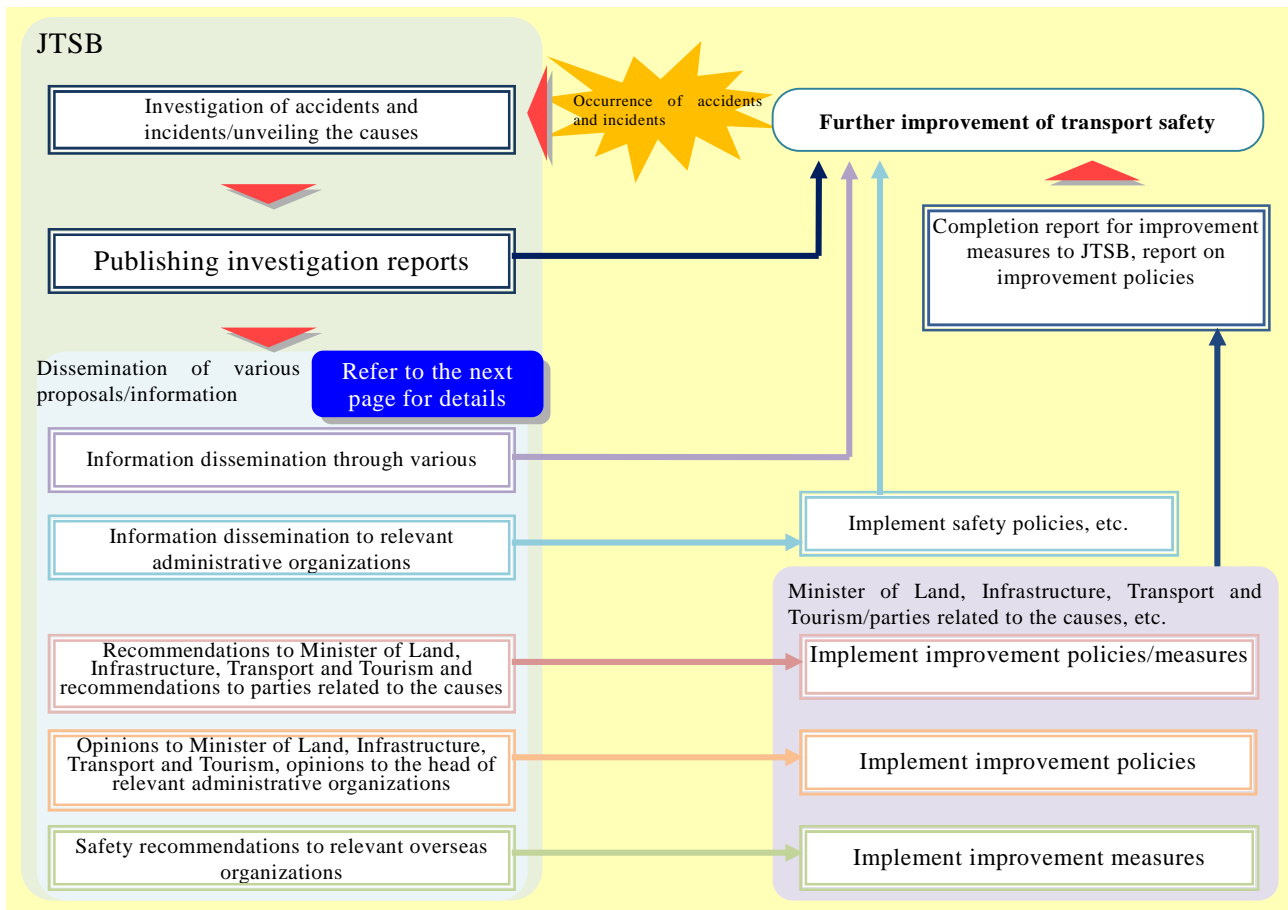
Special Article: Improving transport safety by utilizing accident investigation results

As the JTSB Mission states, our goal is to “contribute to preventing the occurrence of accidents and mitigating the damage caused by them, thus improving transport safety while raising public awareness, and thereby protecting the people’s lives”. In order to do so, we must make the efforts not only to disseminate probable causes and preventive measures for accidents and incidents, which have been acquired through individual accident and incident investigations, in a timely and proactive manner but also to more effectively and widely establish them in society within and outside of Japan through all means.

In addition, conducting follow-ups on policies and measures taken by relevant administrative organizations and parties related to the causes based on various proposals (recommendations, safety recommendations, and opinions) made by JTSB also has an important position in the work cycle of JTSB (unveiling the causes→proposal→safety measures) (refer to the diagram below).

Therefore, JTSB not only enhances the PR activities and contents on preventive measures and enlightenment but also proactively disseminates information through various publications, such as “JTSB Digests”, and homepage, etc. by utilizing accident and incident investigation results, etc. In addition, JTSB not only provides information to/promotes enlightenment activities with relevant parties in cooperation with relevant administrative organizations and relevant organizations, etc. but also provides feedback on accident preventive measures, etc. to relevant parties by dispatching lecturers to safety seminars, etc.

Furthermore, we aim to enhance the various contents by comprehending the needs of users, such as how lessons, etc. learned in the field are utilized and what kind of information disseminating measure is required, by exchanging opinions with relevant organizations and companies, etc.



Work cycle of JTBS (unveiling the causes→proposal→safety measures)

Various proposals

Recommendation

• After completing accident and incident investigations, JTBS requests the Minister of Land, Infrastructure, Transport and Tourism or parties related to the causes to implement policies or measures based on the investigation results in order to prevent accidents and incidents/mitigate the damage caused by accidents. The Minister of Land, Infrastructure, Transport and Tourism must report the policies, which are taken based on the recommendations, to JTBS. In addition, if parties related to the causes did not implement measures without valid reasons, JTBS may release the fact.

Opinions

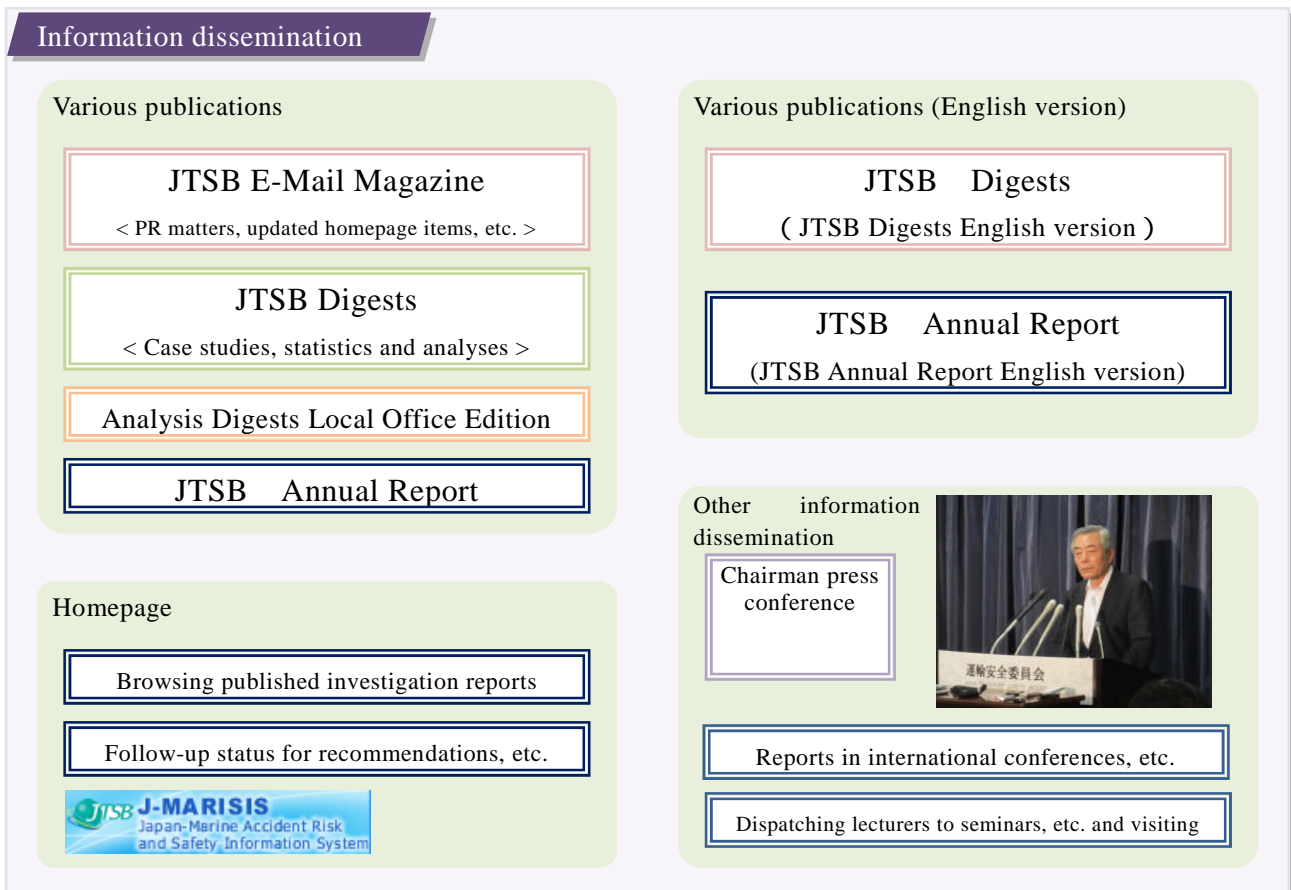
• JTBS requests the Minister of Land, Infrastructure, Transport and Tourism or the head of the relevant administrative organization to implement policies in order to prevent accidents and incidents/mitigate the damage caused by accidents based on the progress of the investigation or multiple examples of accidents and incidents in the past even if the accident and incident investigation has not been completed.

Safety recommendations

• JTBS requests relevant overseas organizations (parties) to implement measures that should be swiftly taken in order to enhance safety as necessary based on international conventions even if the accident and incident investigation has not been completed.

Information provision to relevant administrative organization

• If urgent unsafe factors which must be notified come to light in the course of the investigation of accidents and incidents, JTBS swiftly provides information to administrative organizations.



1 Various proposals (recommendations, opinions, safety recommendations), information provision

In response to the JTSB Mission to “-urging the implementation of necessary policies and measures through the issuance of safety recommendations and opinions or provision of safety information”, we can more effectively contribute to preventing recurrence of accidents and mitigating the damage by providing recommendations and opinions, etc. in a more timely and proactive manner. Therefore, JTSB strives to consider and provide various possible proposals (improvement measures) in each stage of accident and incident investigations, JTSB reviews, and investigation report publication. In addition, JTSB introduces various proposal issuance and status of policies and measures taken based on various proposals through Chairman press conferences. Additionally, we also strive to promote the horizontal deployment of information regarding unsafe matters, etc. through the homepage and enlightenment activities, etc. through seminars, etc.

2 JTSB Digests

The JTSB Advisory Meeting for Duty Improvement and Duty Improvement Action Plan require further development and enhancement of the “JTSB Digests” as “Analysis Digests” as a means to utilize the results gained through individual accident and incident investigations in order to prevent recurrence and promote enlightenment.

6 digests are issued per year (bi-monthly issuance). Among the 6 issues are one issue of Digest of Aircraft Accident Analyses, one issue of Digest of Railway Accident Analyses, two issues of Digest of

Marine Accident Analyses, two issues of case studies (case studies for three modes). (Please refer to Page 137 for details)

The objectives of these issues are to be utilized as materials for safety education and enlightenment in safety seminars targeting those involved with the safety of each transport mode as well as to be used as basic materials for researchers belonging to academic organizations.

We select the themes for the contents based on the published accident and incident investigation reports and accident and incident cases that have occurred at the time of the issuance and include various statistical materials and accident and incident investigation cases describing the occurrence situations of accidents and incidents.

For the past themes for the Digest of Aircraft Accident Analyses, we focused on “small aeroplanes” and “helicopters”, which cover more than 50% of aircraft accidents and incidents investigated by JTSA. We presented the fact that many accidents for both types of aircraft occur due to composite factors involving personnel factors as the statistical trend.

For the Digest of Railway Accident Analyses, we focused on the occurrence of accidents and incidents caused by personnel factors as well as organizational factors for “accidents during work”. For “accidents involving automobiles in level crossing, etc.”, the contents are aimed to enlighten not only railway companies but also general automobile drivers in a broad manner.

The Digest of Marine Accident Analyses covers themes on “marine leisure” and “passenger ships”, such as pleasure boats and personal water craft, etc., as well as anoxia accidents, etc. involving “on-board works”. It was issued to help those involved with each ship/job prevent accidents.

In addition, after issuing each issue of digests, we aim to provide enlightenment to prevent accidents not only by disseminating information through the JTSA E-Mail Magazine and providing information to relevant parties and relevant organizations, etc. but also by offering lectures, etc. using accident and incident case studies and analysis contents included in the publications.

3 Analysis Digests Local Office Edition

Our regional offices select unique themes in each respective jurisdiction in order to contribute to the prevention of marine accidents and incidents within the respective jurisdictions and issue Analysis Digests Local Office Edition (Please refer to Page 140 for details)

In addition, after issuing each issue of digests, we not only disseminate information through the JTSA E-Mail Magazine and provide information to various communication committees, etc. but also offer lectures, etc. using accident and incident case studies and analysis contents included in the publications. In some cases, we prepare A5-size pamphlets and distribute them to customers, etc. through manufacturers and distributors to be utilized for accident prevention.

4 Information dissemination to other countries

We think that the lessons we learn through JTSA accident and incident investigations can work as valuable materials to prevent recurrence of similar accidents not only in Japan but also in other countries.

Therefore, we not only consider how we can effectively utilize such lessons but also reinforce the information dissemination to other countries in order to enhance our international presence as an accident

investigation organization that is trusted on a global scale.

Specific measures include the English translation of the “JTSA Digests”, which summarize lessons that we have learned through accident and incident investigations. We disseminate information by releasing them on the homepage and through overseas media transmissions, etc. one by one.

In addition, we proactively introduce the summary of and lessons that we have learned from accident and incident investigations in Japan through international organizations, such as the ITSA (International Transportation Safety Association), ICAO (International Civil Aviation Organization), IMO (International Maritime Organization), etc. as well as various international seminars, etc.

Furthermore, regarding railway accidents and incidents, we have translated the Train Derailment Accident on the JR Fukuchiyama Line into English as a case with great social impact among our investigation reports. By posting the translation on the English version homepage, we aim to internationally share the seriousness and lessons of the accident.

5 Japan-Marine Accident Risk and Safety Information System

Various vessels, such as ocean-going ships, domestic ships, passenger ships, fishing vessels, pleasure boats, etc., use the same water. However, it is probable that safety-related information is not sufficiently shared among each vessel type.

Therefore, we have considered and exchanged opinions with approximately 50 organizations including maritime-related organizations, vessel companies, etc. regarding the necessity of the system “Japan-Marine Accident Risk and Safety Information System”, through which we can acquire beneficial safety-related information, such as information involving locations of marine accidents and incidents, Analysis Digests Local Office Edition prepared by each regional office, and even weather data, fishing grounds, vessel traffic density based on AIS (Automatic Identification System) data, etc. by cooperating with relevant administrative organizations and relevant organizations with the aim of preventing the recurrence of accidents.

In addition, the “Japan-Marine Accident Risk and Safety Information System” has been in operation since 2013 as an internet service that enables users to overlap and see the marine accident and incident locations on the map by using marine accident and incident data that we have accumulated in the past. (Please refer to Page 142 for details)

Column

“Face-to-Face” information dissemination

Director for Analysis, Recommendation and Opinion

We have given lectures on the theme of publications, such as “JTSD Digests”, seminars hosted by various organizations, academic conferences, international symposiums and other occasions.

When we give lectures, we must compile the presentation contents in order that the needs of the audience and the matters that we wish to promote coincide with each other.

“Crewmember training sessions” can target many different types of crewmembers. In the case of crewmembers of vessels, they can be people like masters and deckhands who are directly involved with vessel maneuvering as well as people like cooks and stewards and stewardess service staff who are required to consider the safety of passengers and themselves, although they are not involved with vessel maneuvering. When the presentation discusses matters regarding vessel maneuvering practice, the contents are sometimes only understandable by part of the audience. Therefore, we must be innovative so that the presentation contents would interest in the audience as much as possible of all.

When we hear their impressions after lectures, we would sometimes receive positive words, such as “I was able to reconfirm the importance of hazard anticipation” and “the presentation was thorough and easy to understand,” but we sometimes receive opinions and comments with issues for us to address in the future, such as “The terminology was too hard to understand” and “I wanted to introduce more specific accident case studies.” We are very grateful to receive such feedback.

On the other hand, when we give presentations in academic conferences and international symposiums, the audience would be experienced academic experts with expertise who belong to domestic and foreign universities and research organizations. It is also valuable opportunities to receive opinions from experts. We hope that having more opportunities such occasions would help us find useful hints for preparing statistics and analysis materials that can be used as research basic materials that help each academic field develop.

I feel that the initiatives that are required of us are not only information dissemination through the homepage and publications in a one-way manner but also actually have face-to-face communication and listen to the voices in the field with a humble attitude.



Lecture in the Oceanographic Society of Japan
Ocean Traffic Laws and Regulations Study
Group



Presentation of posters at the International
Maritime Health Symposium (France)

Column

Accident investigators in the future

Director for Analysis, Recommendation and Opinion

One day in December, 12 pupils of a certain elementary school visited JTSB office as part of a field trip.

In this field trip, pupils visited various ministries and agencies as part of the group activities, and then JTSB described the outline to them.

It was the first time for us to attempt describing our work contents to pupils; therefore, we had a number of considerations in the preparing stage of presentation materials to determine what kind of structure would make it easy for children to understand the contents.

Unlike the police and coast guard officers, it is difficult for children to clearly picture the work of “accident investigators”. In order to encourage them to be interested in this work, we described the work contents by using photos such as tools used in investigations and discussing stories from our experiences.

Since this field trip was for 5th and 6th grade pupils, some children were very familiar with accidents that happened in the past. As a consequence, we felt that this was also a field that interests children, as children are familiar with these vehicles.

I hope to have more opportunities like this in the future in order that we can help children be familiar and learn more about accident investigations; accordingly, they would want to become accident investigators when they grow up.