

Chapter 1 Summary of major investigation activities in 2022

In the case of occurrence of aircraft, railway, or marine accidents, the JTSB designates an investigator-in-charge and accident investigators who begin investigations to determine their causes. Since we can never know when or where accidents may occur, the personnel of the Board, including accident investigators, are making continuous efforts to be able to conduct investigation activities immediately when accidents should occur.

Accident investigators conduct investigations and invite comments from parties relevant to the cause of the accident; accordingly, they make draft recommendations or opinions regarding the measures to be taken to prevent the recurrence of accidents and to mitigate damage caused by accidents. Therefore, they shall endeavor to improve their level of skill and knowledge by participating in national and international training; moreover, they share accident information among international society by attending international conferences.

In 2022, accident investigators not only have conducted on-site investigations and interviews with parties relevant to the causes of the accidents, taking measures for COVID-19 as being taken continuously since 2021, but also put efforts, such as holding a council meeting with a Web form for an accident investigation report, to minimize the impact on the investigation activities.

In the future, we will continue to carry out thorough investigations into the causes of aircraft, railway, and marine accidents, and will publish our investigation reports as soon as possible. Based on the results of our investigations, who will also make recommendations and state our opinions as necessary to related government institutions and parties relevant to the causes of accidents to prevent the recurrence of accidents. [Regarding recommendations and opinions, see “Chapter 2. Summary of recommendations and opinions issued in 2022” (page 22).]

1 Major accidents and serious incidents occurred in 2022 for which investigations commenced

The accidents and serious incidents also occurred in 2022. The primary investigations which the JTSB commenced are listed below:

(1) Aviation mode

- **Crash of a Beechcraft A36 (small aeroplane), the non-profit organization MESH Support at Iejima Airport (Occurred on March 12)**
- **Fatal accident of a Fuji Heavy Industries FA-200-160 (small aeroplane) a privately owned, due to ditching in the Ariake Sea (Occurred on April 18)**
- **Crash of an Aerospatiale AS350B (Rotorcraft), a privately owned, in Jinseki Kogen-cho, Jinseki-gun, Hiroshima Prefecture (Occurred on August 15)**
- **Crash of a Scheibe SF-28 Tandem Falke aircraft (power glider), a privately owned, in Takayama City, Gifu Prefecture (Occurred on October 26)**
- **Crash of a Rans S-7 Courier R582L (ultralight plane), a privately owned, in Bando City, Ibaraki Prefecture (Occurred on November 20)**

(2) Railway mode

- **Train derailment in the premises of Takamiya Station on the Toga Line of the OHMI Railway Co., Ltd. (Hikone City, Shiga Prefecture) (Occurred on February 7)**
- **Train derailment between the Tohoku Shinkansen Fukushima Station - Shiroishi Zao Station (Shiroishi City, Miyagi Prefecture) of East Japan Railway Company (Occurred on March 16)**
- **Train derailment between Yodo Line Hanke Station and Ekawasaki Station (Shimanto City, Kochi Prefecture) of Shikoku Railway Company (Occurred on August 25)**
- **Train derailment in the premises of the Suita General Depot Kyoto Branch of the Tokaido Line (Muko City, Kyoto Prefecture) of West Japan Railway Company (Occurred on September 6)**
- **Serious incident because of vehicle damage between the Bungo Ogi Station and Bungo Taketa Station on the Hohi Line (Taketa City, Oita Prefecture) of Kyushu Railway Company (Occurred on October 17)**

In 2022, 14 railway accidents were subject to investigation, with investigations into the causes of 27 accidents conducted, including 13 ongoing accident investigations from the previous year. Further, 2 railway serious incidents were subject to investigation, with investigations into the causes of 3 serious incidents conducted, including 1 ongoing serious incident investigation from the previous year.

(3) Marine mode

- **Fire accident of the fishing vessel No. 51 YUJIN MARU (on the sea about 185 km southeast of Tanegashima Island, Kagoshima Prefecture) (Occurred on March 21)**
- **Flooding of the passenger ship KAZU I (in the sea area near Kashuni Falls on the west side of Cape Shiretoko) (Occurred on April 23)**
- **Fatality of a visiting angler on the recreational fishing vessel No. 2 EBISU MARU fishing fatality (near Jinoshima Island, Wakayama City, Wakayama Prefecture (to be confirmed)) (Occurred on June 5)**

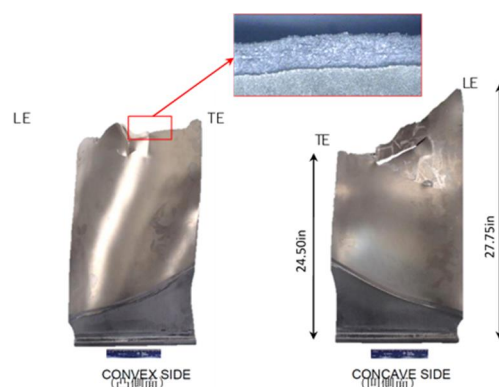
In 2022, 714 marine accidents were subject to investigation, with investigations into the causes of 1,366 accidents conducted, including 669 ongoing accident investigations from the previous year (excluding 17 incidents deemed to not be an accident as a result of investigations). Further, 192 marine incidents were subject to investigation, with investigations into the causes of 308 (excluding 11 incidents deemed to not be an incident as a result of investigations) incidents conducted, including 127 ongoing incident investigations from the previous year.

2 Major accidents and serious incidents for which investigation reports were published in 2022

Completed investigation into the causes of accidents and incidents undergo committee (subcommittee) review/resolution, investigation reports are submitted to the Minister of Land, Infrastructure, Transport, and Tourism and published on the Japan Transport Safety Board website. Major accidents and incidents published on the website are as follows.

(1) Aviation mode

- A serious incident in which the captain of the Beechcraft A36 (small aeroplane) a privately owned, acknowledged that there was a risk of collision or contact with an Airbus A320-214 (large aeroplane) operated by SPRING AIRLINES.CO., LTD.(Occurred on December 21, 2019)
- Accident in which cabin crew members were injured, the Airbus A320-232 (large aeroplane) operated by Tigerair Taiwan, at FL 300 over about 100 km north-northeast of the Miyazaki Airport, due to the shaking of the aircraft (Occurred on December 25, 2019)
- A serious incident involving an ATR 42-500 (large aeroplane) operated by JAPAN AIR COMMUTER CO.,LTD. in which the aircraft deviated from the runway at Amami Airport (Occurred on January 8, 2020)
- Accident in which a bombardier DHC-8-402 aircraft (large aeroplane) operated by ORIENTAL AIR BRIDGE CO., LTD. suffered damage to the aircraft due to a tail strike during landing at Fukue Airport (Occurred on October 23, 2020)
- Serious incident in which the engine of a Boeing 777-200 (large aeroplane), Japan Airlines Co., Ltd. was broken (broken pieces penetrated into the engine) in the sky about 50 km north of Naha Airport (Occurred on December 4, 2020)

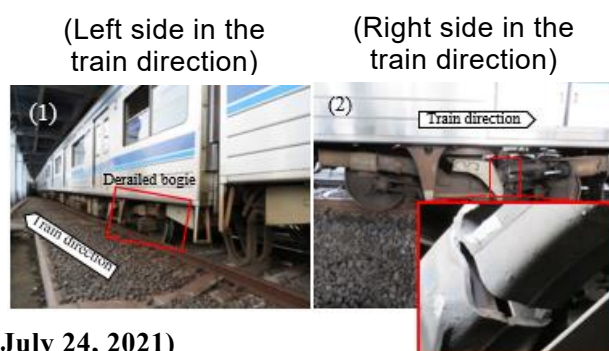


The fan blade and the fractured surface of Japan Airlines' aircraft

Completed investigation reports into 5 aircraft accidents and 14 serious aircraft incidents have been published.

(2) Railway mode

- Train derailment in the premises of the Aoto Station (Katsushika-ku, Tokyo) of Keisei Electric Railway Co., Ltd. (Occurred on June 12, 2020)
- Train derailment between Madaki Station and Rikuchumonazaki Station on the Ofunato Line (Ichinoseki City, Iwate Prefecture) of East Japan Railway Company (Occurred on July 5, 2021)
- Train derailment in the premises of the Joban Line Sumidagawa Station (Arakawa-ku, Tokyo) of Japan Freight Railway Company (Occurred on July 24, 2021)
- Level crossing accident between Sekiyama Station and Nihongi Station of the. Myoko Haneuma Line (Joetsu City, Niigata Prefecture) of Echigo TOKImeki Railway Company (Occurred on September 27, 2021)
- Serious car failure incident in the premises of Ise-Asahi Station of the Nagoya line (Asahi-cho, Mie Prefecture) of Kintetsu Railway Co., Ltd. (Occurred on November 23, 2021)

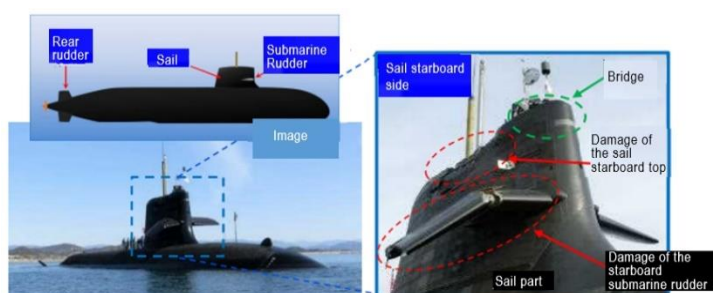


Train derailment of Keisei Electric Railway Co., Ltd.

Completed investigation reports into 11 railway accidents and one serious railway incident have been published.

(3) Marine mode

- Collision with the bridge by Cargo ship BUNGO PRINCESS (Minami Honmoku Hama Road, Keihin Port) (Occurred on September 9, 2019)
- Collision between the container ship SITC BANGKOK and the container ship RESURGENCE (Shimizu Port, Shizuoka City, Shizuoka Prefecture) (Occurred on October 24, 2019)
- Fatality of people waiting for the pleasure boat Goken III in a floating state (Lake Inawashiro) (offshore Nakadahama, Aizuwakamatsu City, Fukushima Prefecture (Lake Inawashiro)) (Occurred on September 6, 2020)
- Collision between the cargo ship Hayato and the recreational fishing vessel No. 5 Fudomaru (Kashima Port, Ibaraki Prefecture) (Occurred on November 28, 2020)
- Collision between the cargo ship OCEAN ARTEMIS and the submarine SORYU (south-southeast off Cape Ashizuri, Tosashimizu City, Kochi Prefecture) (Occurred on February 8, 2021)



Collision between the cargo ship OCEAN ARTEMIS and the submarine SORYU

Completed investigation reports into 728 marine accidents and 129 incidents have been published.

Among the published investigation reports, the JTSB made recommendations to An-ei Kanko Company regarding the "grounding accident of the passenger ship No. 12 An-ei" on June 30.

In addition, the JTSB expressed its opinion to the Minister of Defense on August 25 regarding the "collision between the cargo ship OCEAN ARTEMIS and the submarine SORYU" and on December 15 to the Minister of Land, Infrastructure, Transport and Tourism regarding the "Flooding of the passenger ship KAZU I", respectively.

(For details, see "Chapter 2 Summary of recommendations and opinions issued in 2022," pages 23-25 and 28-31.)

3 Major accidents and serious incidents for which progress reports were published in 2022

Accident progress reports are made to the Minister of Land, Infrastructure, Transport, and Tourism and published on the Japan Transport Safety Board website where deemed necessary during accident and incidents investigations to prevent a recurrence of such accidents. Major accidents and incidents of which progress reports were published on the website are as follows.

(1) Railway accident

- Railway accident investigation related to Nippori-Toneri Liner train derailment (Occurred on October 7, 2021)

The JTSB has been conducting investigations to determine the cause of this accident. However, it will still take a certain amount of time for us to obtain factual information, analyze the cause, and consider measures to prevent a recurrence. For this reason, as it is expected that it will be difficult to complete the investigation within one year from the date of the accident, we will publish an interim report after its submission to the Minister of Land, Infrastructure and Transport on September 29.

This progress report has been published on the Japan Transport Safety Board website.

(<https://www.mlit.go.jp/jtsb/railway/rep-acci/keika20220929-1.pdf>)

(2) Marine accident

• Marine accident investigation on the grounding accident of the Cargo Ship WAKASHIO (Occurred on July 25, 2020)

Regarding this accident, the JTSB has obtained agreement from the Republic of Panama as the flag state and the Republic of Mauritius as the coastal state to act as a country to perform maritime safety investigations, and we are proceeding with the investigation in an intensive manner, accordingly. However, in order to conduct further investigation and analysis of the oil spill, it is expected that more time will be required to compile the final report. From the perspective of preventing the occurrence of similar accidents, however, we submitted a progress report to the Minister of Land, Infrastructure, Transport and Tourism on June 30 and stated our opinion on the matter.

This progress report has been published on the Japan Transport Safety Board website.

(https://www.mlit.go.jp/jtsb/ship/rep-acci/2022/keika20220630-0_2020tk0010.pdf)

For opinions related to the progress report, see Chapter 2, page 26.

• Marine accident investigation on the flooding of the passenger ship KAZU I” (Occurred on April 23)

The JTSB is currently conducting an intensive investigation into this accident. However, since it is necessary to conduct further detailed investigation and analysis, it is expected that more time will be required before we can compile a final investigation report. Since the direct cause of the flooding and the mechanism from flooding to foundering has been elucidated substantially by the investigations to date, we will not only submit a progress report to the Minister of Land, Infrastructure and Transport on December 15, but also publish the same and state our opinion on the matter.

This progress report has been published on the Japan Transport Safety Board website.

(https://www.mlit.go.jp/jtsb/ship/rep-acci/2022/keika20221215-0_2022tk0003.pdf)

For opinions related to the progress report, see Chapter 2, page 30.



Preparation of the Basic Policy for the Training Courses for Accident Investigators

Review Meeting for Career Advancement by Mid-Career Staff

1. Background of the preparation of the policy

In order to review the vision of the career advancement in future of the staff recruited by the JTSB, the “Review Meeting for Career Advancement by Mid-Career Staff” was organized in FY2021, and after much debate, the “Basic Policy for the Training Courses for Accident Investigators” for promoting the appointment of technical staff started to be recruited in FY2020 to accident investigators was prepared in 2022.

2. Purpose

In order to consistently develop mainly young technical staff as accident investigators who meet the qualifications for the appointment by the JTSB, this policy aims to develop courses for them to acquire knowledge and on-site experience in each mode of aviation, railway, and marine and to acquire knowledge and experience for accident investigation.

In addition, as the final goal for the career path, the aim of this policy is that they will provide instructions to other investigators while conducting accident investigations as investigators in a managerial position and hand over their accident investigation skills to those in future generations.

3. Content

We did not only organize the skills and experiences to be acquired in each department of the JTSB for fulfilling their duties as accident investigators, but also developed model cases of the career path by studying places for external secondment to allow them to acquire on-site experiences in each mode which cannot be acquired with these alone and by combining them.

In addition, we reviewed systematic training programs according to the level of each staff, including an increase in the number of staff for the existing training, creation of a new training, etc.

Incidentally, technical staff is mainly taken into consideration in the “Basic Policy for the Training Courses for Accident Investigators.” However, we have also established the requirements for enabling clerical staff to be engaged in the training courses of aviation and railway accident investigators into which clerical staff has not been appointed so far.

In order to continue to maintain the system to allow the JTSB to conduct appropriate accident investigations, the JTSB will perform necessary revisions based on its operational status.

The development plans for each position including career path and others are the following:

(1) Official (about 5 years)

Their goal is to gain practical experience in each mode, acquire technical knowledge, and become knowledgeable about accident investigation work. After their placement in sections within the secretariat for about 2 years, they will be seconded to business operators, etc. In addition, they will receive training on the principles and basics of public servants as well as basic knowledge training for each mode.

(2) Official ~ Chief Official (about 5 years)

They will take part in actual investigations work based on the knowledge and on-site experience acquired as a staff member in order to gain experience to become an accident investigator. In addition, they will be given opportunities to get involved in the planning of accident investigation systems and international projects in various administrative agencies or within the secretariat. Incidentally, in the fields of aviation and navigation, we will aim to train accident investigators who are well versed in international affairs.

Further, in addition to the training on techniques for each mode, they will receive training specialized in accident investigations, such as accident investigation techniques, etc.

(3) Completion of the training courses ~ Deputy Director (appointment to the position of an accident investigator)

After the completion of the training courses, if there is still some time before being appointed to an accident investigator, they will be provided with opportunities to cash in on their experience cultivated so far in other departments within the secretariat, in addition to accident investigation work.