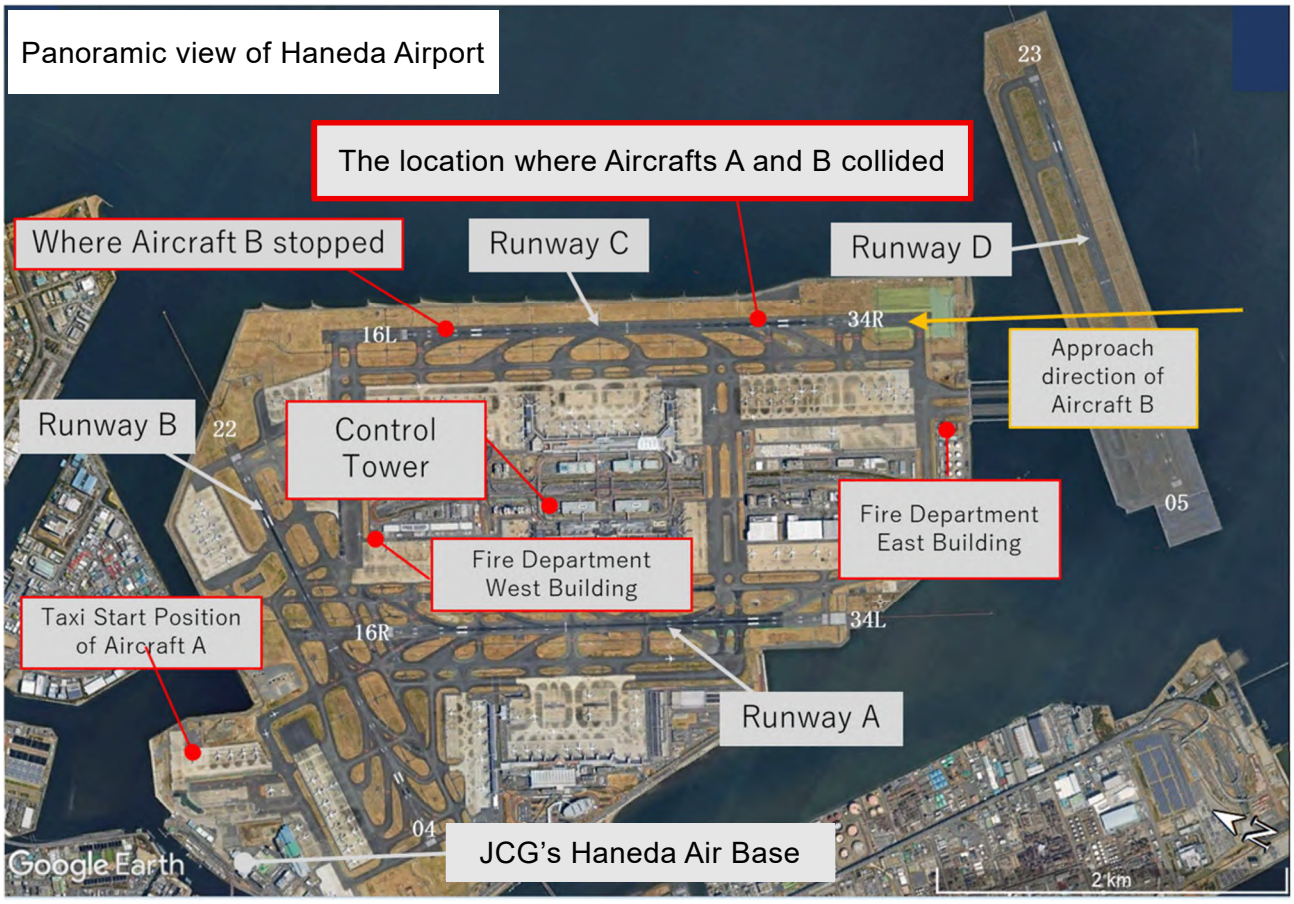
Major activities in the past year

1 Accident Investigation Regarding a Collision between Aircraft on the Runway at Haneda International Airport in Tokyo

The following description has been restructured based on the contents of the interim report to make it easier for readers to understand. Please refer to the interim report for details.

(1) Summary of the Accident

At around 17:47 on Tuesday, January 2, 2024, an accident occurred on Runway 34R (Runway C) at Tokyo International Airport (hereinafter referred to as "Haneda Airport"; please refer to the figure below for the layout of the main facilities located at the airport). A Bombardier DHC-8-315, JA722A (hereinafter referred to as "Aircraft A"), operated by the Japan Coast Guard (hereinafter referred to as "JCG"), collided with an Airbus A350-941, JA13XJ (hereinafter referred to as "Aircraft B"), operated by Japan Airlines Co., Ltd., which was landing on Runway 34R.



(2) History of the Accident

Aircraft A was scheduled to depart from the JCG's Haneda Air Base Apron and take off from Runway C to Niigata Airport in order to transport disaster relief supplies in response to the damage caused by

the earthquake that occurred in the Noto Peninsula in Ishikawa Prefecture on January 1, the day before. Aircraft A was instructed by the air traffic controller to hold short of Runway 34R, but it entered the runway instead and stopped on the runway, where it collided with Aircraft B, which was landing on Runway 34R. There were six persons on board Aircraft A, consisting of the pilot in command and five other flight crew members. The pilot in command of Aircraft A sustained serious injuries, while the other five crew members sustained fatal injuries. Aircraft A burst into flames upon collision with Aircraft B, and the aircraft was destroyed by both the impact and the resulting fire.

Meanwhile, Aircraft B was approaching to land on Runway 34R after taking off from New Chitose Airport as Japan Airlines Flight 516. Aircraft B did not detect Aircraft A until just before the collision, when Aircraft A was illuminated by an external light on the front of the aircraft. The collision occurred immediately after. Following the impact, a fire broke out under the fuselage and engine of Aircraft B. The aircraft continued to taxi, veered off the runway, and came to a stop in a grassy area near the threshold of Runway 34R.

There were 379 people on board Aircraft B, consisting of the Pilot in Command, 11 crew members, and 367 passengers. All crew and passengers evacuated from Aircraft B after it came to a stop. During the evacuation, one passenger sustained serious injuries, four passengers suffered minor injuries, and twelve passengers were examined by a doctor for feeling unwell. Aircraft B was destroyed by both the collision impact and the subsequent fire.

The controller at Tokyo Airport Control, who was responsible for controlling both aircraft from the Tokyo Airport Traffic Control Tower, was unaware that Aircraft A had entered the runway until the two aircraft collided.

Additionally, firefighting operations were conducted in response to the fires on both aircraft by the Tokyo Airport Fire Station of the Ministry of Land, Infrastructure, Transport and Tourism and the Tokyo Fire Department at the request of the Airport Office.

Aircraft A

Same type of Aircraft B

(3) Progress of the Accident Investigation

Upon receiving information about the occurrence of the accident, the JTSB dispatched six investigators, including an investigator-in-charge, to the accident site on the evening of January 2 to begin an investigation. Subsequently, to strengthen the investigation system, the JTSB added investigators to the accident investigation team and changed the investigator-in-charge from the investigator to the Investigator-General for Aircraft Accident. The JTSB continued the investigation

with the cooperation of many relevant parties and published an interim report on the accident investigation on December 25, 2024.

This interim report describes extensive factual information that may have been involved in the accident. The JTSB believes that exposing aviation personnel to this information at an early stage, rather than waiting for the release of the aircraft accident investigation report, will enable its use in efforts to improve aviation safety.

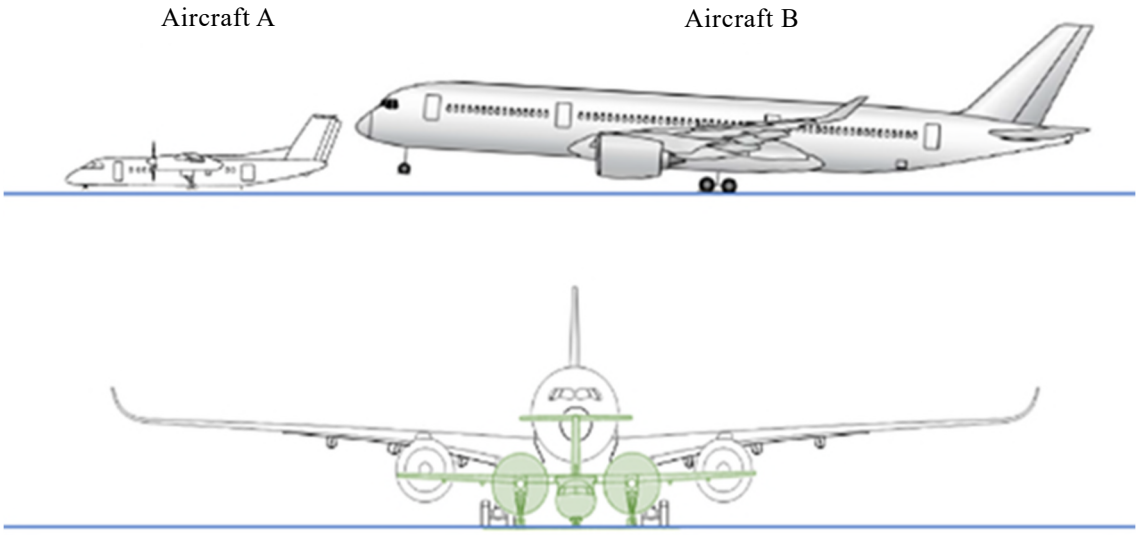
For the interim report on the accident, please refer to the JTSB's website.

https://jtsb.mlit.go.jp/aircraft/rep-acci/keika20241225-JA722A_JA13XJ.pdf (Japanese)

https://jtsb.mlit.go.jp/eng-air_report/interim20241225-JA722A_JA13XJ.pdf (English)

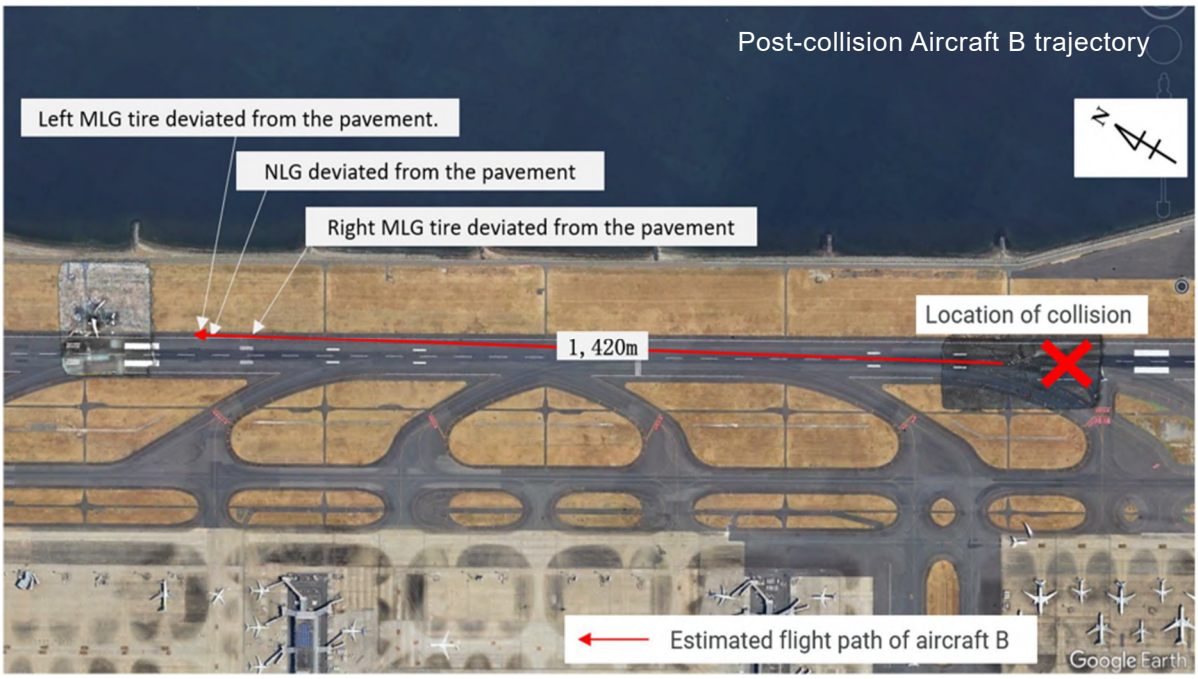
(4) Situation of the Accident

The relative positions of the two colliding aircraft were as shown below.

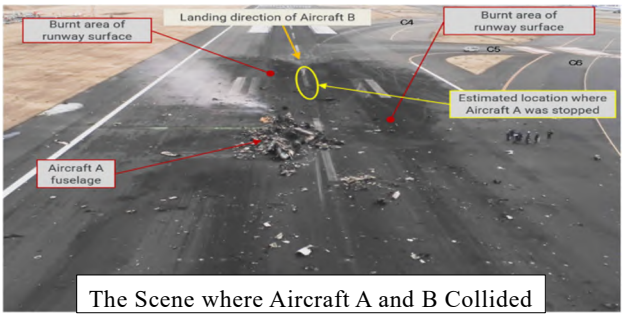


The Situation just before the Collision between Aircraft A and B

As a result of this collision, it is believed that most of the fuselage of Aircraft A was destroyed. Meanwhile, when Aircraft B collided with Aircraft A, equipment such as the electrical system and control system under the floor of the cockpit was severely damaged. As a result, the wheel brakes that slow down the aircraft did not function, and after taxiing without directional control, Aircraft B continued to roll down the runway and came to a stop in a grassy area.



After the collision, the fire that broke out in Aircraft A spread mainly throughout the fuselage. In Aircraft B, the fire burned intensely, primarily in the fuselage, and destroyed most of the aircraft. As shown in the following figure, the fuselages of both aircraft did not retain their original shape.



The Scene where Aircraft A and B Collided


Aircraft B

In this accident investigation, the Flight Data Recorder records were crucial in clarifying the flight situation and cockpit conditions before the collision. As shown in the figure below, the FDRs of both aircraft were severely damaged by the impact of the collision and the effects of the fire. In particular, the Cockpit Voice Recorder of Aircraft B lost its original shape and took several days to locate. Extracting data from these damaged flight recorders requires special equipment and technology. After repeated trial and error with the cooperation of the relevant states, the JTSB was finally able to extract the recorded data and clarify the situation at the time of the collision.

The condition of the flight recorders

In addition to clarifying the cause of the collision, this investigation will also examine the emergency

evacuation of passengers and crew members from Aircraft B after the collision. Fortunately, all passengers and crew members on board Aircraft B survived the accident. The JTSB hopes to derive useful lessons for future similar events where emergency evacuation is necessary.

(5) Future Investigations

In preparation for the release of the investigation report, the JTSB will continue to analyze factual information, determine the causes, and identify specific measures to prevent recurrence and mitigate damage. Finally, we would like to express our deepest condolences to those who lost their lives in this accident, and our sympathies to those who were affected by the accident.

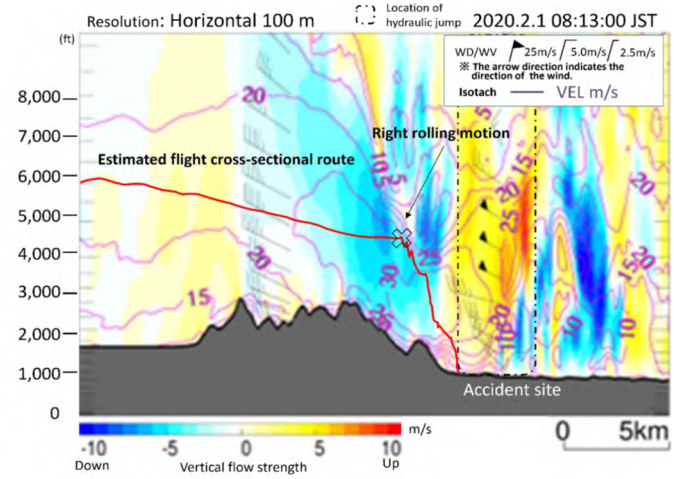
2. Publication of the Aircraft Accident Investigation Report on Damage to Persons and the Helicopter at the Time of the Forced Landing

【Summary】
On February 1, 2020, while a helicopter was flying over a mountainous area, the main rotor blades severed the tail drive shaft, making it difficult to control the aircraft. The captain attempted to make a forced landing in a nearby paddy field, but due to a hard landing, the helicopter rolled over, resulting in injuries to those on board and the destruction of the aircraft.

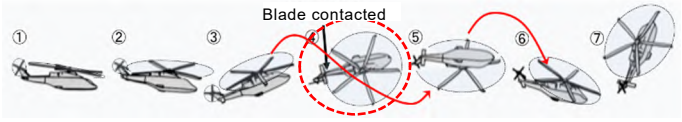
【Probable Causes】
It is presumed that the reason why the main rotor blades severed the tail drive shaft while the helicopter was in flight was that, while flying at high speed over a mountainous area in strong winds, the helicopter encountered a strong downdraft, which caused a rapid increase in airspeed, resulting in a right rolling motion exceeding 360°, during which the main rotor blades flapped significantly toward the fuselage.

In the investigation of this aircraft accident, when the helicopter rapidly increased its airspeed over mountainous regions, the helicopter attitude changed significantly, which might have been caused by mountain waves. Therefore, to investigate the influence of mountain waves at the time of the accident, detailed weather simulations were conducted at the Atmosphere and Ocean Research Institute, University of Tokyo. The JTSB then compared the results with the flight data and the cockpit voice recordings recorded by the Multi-Purpose Flight Recorder installed to analyze the events that occurred.

As a result, when the helicopter encountered a localized strong downdraft and the horizontal wind speed decreased while flying at high speed with a tailwind over the Mountain Range, the airspeed rapidly increased. In response to the attitude change when the airspeed increased, part of the attitude retention function was released and the cyclic stick was moved to the right rear in an



Vertical cross-section of horizontal wind speed and vertical flow



Attitude change at the time of contact with the main rotor blades

Attitude of helicopter at the time of contacting

attempt to maintain attitude, resulting in a right rolling motion exceeding 360°. The JTSB concluded that the main rotor blades most likely severed the tail drive shaft during this motion, making the helicopter difficult to control.

Based on the results of this investigation, the JTSB recommended, as safety actions, that when flying over mountainous regions in strong winds where mountain waves are expected to occur, pilots need to slow down in advance and select appropriate flight control modes to respond to sudden weather changes. The JTSB also recommended that to fully understand and properly use flight control modes during flight, pilots should carefully read the relevant documents and, whenever possible, conduct training using Full Flight Simulator and others corresponding to each aircraft type, including coordination between two pilots to enable quick and calm responses during emergency operations.

3. Publication of the First Small UA Accident Investigation Report Related to the Accident Caused by a Small Unmanned Aircraft System (UAS)

[Summary]

On July 14, 2023, a small unmanned aircraft (UA) crashed after colliding with a road sign pillar during pesticide spraying training flight. At that time, the pilot came into contact with the rotating propeller of the small UA, resulting in serious injuries.

[Probable Causes]

In this accident, it is highly probable that the operator was seriously injured because the operator who was approaching the small UA came into contact with the rotating propeller after the small UA collided with a road sign pillar, changed direction toward the operator, and crashed during pesticide spraying training flight.

The reason the operator was approaching the small UA is probable to be that the operator was flying the small UA without being aware of the safe separation distance from the small UA. Additionally, the reason the small UA collided with the pillar is probable to be that the operator was flying the small UA without being aware of the boundaries of the spray area and the safe separation distance from obstacles, and that the operator made an error when interrupting the automatic flight, which made the stopping distance longer than usual.

This small UA accident is the first time that the JTSB has investigated and published an investigation report on small UA accidents, which were newly added to the scope of accident investigations due to the revision of the Act for Establishment of the Japan Transport Safety Board in accordance with the revision of the Civil Aeronautics Act on December 5, 2022.

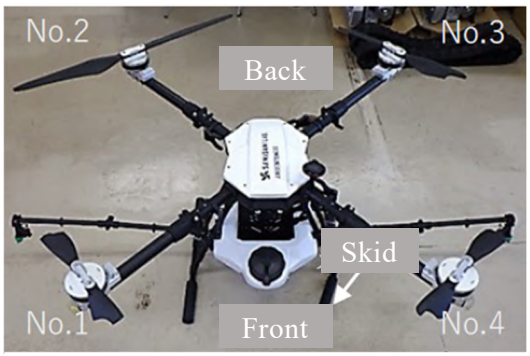


Fig. 1: Accident small UA

In the investigation of this accident, with the cooperation of the small UA manufacturer, flight records of the small UA (see Fig. 1) were obtained and analyzed, and the flight conditions of the small UA were determined from the time it collided with a road sign pillar to the time it came into contact with the operator and crashed. Additionally, to confirm the flight characteristics of the automatic flight mode that was used at the time of the accident, the JTSB reproduced and verified the situation at the time of the accident. These results were compared with the operator's testimony, and the events that occurred were analyzed.

As a result, it became clear that the operator, who was flying the small UA in automatic flight mode, did not properly switch flight modes when interrupting the automatic flight and stopping the small UA, which resulted in the small UA requiring a longer distance to stop than usual and colliding with the pillar. At that time, it was highly probable that the rotating propeller came into contact with the hand of the operator, who was standing near the pillar, causing the operator's injuries.

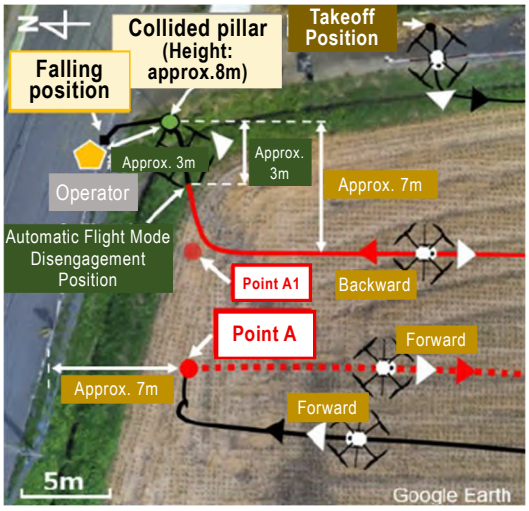


Fig. 2: Flight path at the time of the accident

In this investigation, to accurately grasp the shape of the rice field and the positional relationship between the utility pole that the small UA collided with and the flight path, photographs were taken from above using a small UA, and the flight path of the small UA near the accident site was depicted by combining the topographic data with the small UA's flight records (see Fig. 2).

Based on the results of this investigation, the JTSB indicated that, as one of the safety actions, it is important for those who use small UA for aerial application to assign an assistant to a position according to the flight path and to ensure a safe distance between the small UA and obstacles, the operator, and third parties.

4. Investigation report published on Shinkansen derailment accident caused by earthquake -Further consideration is needed regarding the enhancement of measures to prevent derailment and deviation of Shinkansen trains-

[Summary]

On March 16, 2022, the 223B train from Tokyo to Sendai, composed of 17 cars, started from Fukushima station was derailed between Fukushima station and Shiroishizao station. The 60 of the 68 axles had derailed. In addition, 10 of the 60 derailed axles were in a condition in which the deviation preventing guides, etc. installed on the cars were climbing over the rails. Just before the accident, at around 23:36, an earthquake with an epicenter off the coast of Fukushima Prefecture occurred, with a maximum seismic intensity of 6 Upper on the Japanese scale. About two minutes before the quake, a foreshock with a maximum seismic intensity of 5-lower on the Japanese scale and the train stopped by Earthquake Early Warning System for Shinkansen. There were 75 passengers, one driver and four conductors on board, in which six passengers were injured.

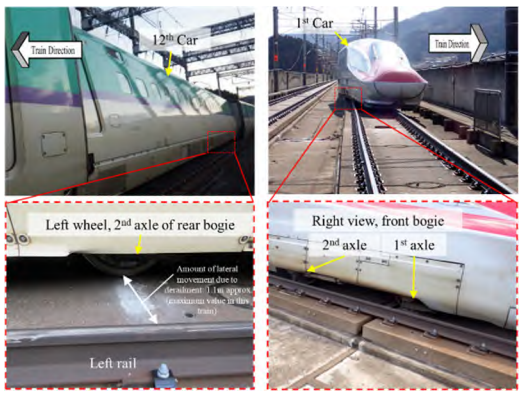


Figure 1 Situation of the Accident Train

[Probable Causes]

It is probable that due to the strong shaking of the track surface caused by the earthquake motion, the rolling of the carbody occurred, then the left or right wheel lifted up, eventually the train derailed after over the rail (rocking derailment).

The investigation of this accident analyzed the mechanisms of derailment and deviation caused by earthquake ground motion. As a result, the JTSB classified the behavior of each wheel and axle at the time of the accident into eight patterns and found that derailment and deviation occurred in a process such as that shown in Fig. 2 as an example.

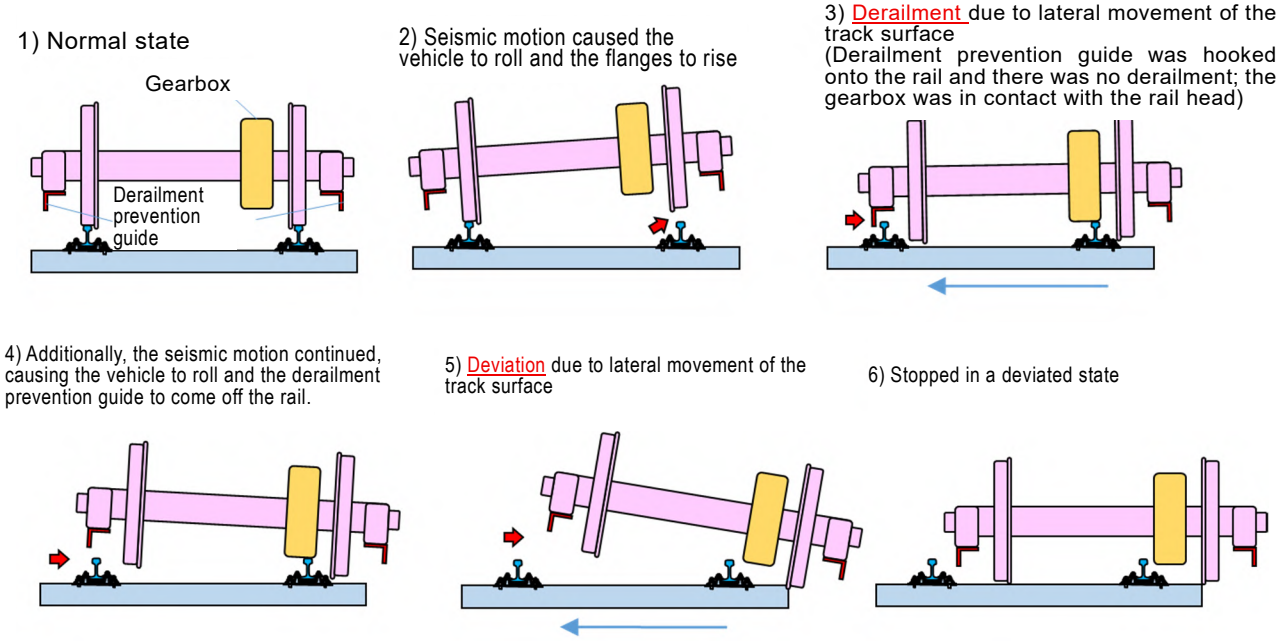


Fig. 2: Image of car behavior during derailment and deviation (example) (The wheel and axle derailed, and deviation prevention guide initially functioned but ultimately deviated.)

Based on the above investigation results, the JTSB has proposed measures to prevent recurrence of accidents, including further enhancing the functionality of derailment and deviation prevention measures for Shinkansen trains.

5. Publication of the Derailment Accident Investigation Report Due to Handling of Driving Restrictions - Fundamental Safety Measures Must Be Rebuilt, Including a Fundamental Change in Awareness within the Company. -

[Summary]

On June 2, 2023, a single-car train bound for Kubokawa Station from Sukumo Station derailed after running over earth and sand between Ariigawa Station and Tosa-Shirahama Station (see Figs. 1 and 2). There were no passengers on board, only one train driver and one maintenance worker, but no injuries were reported.

[Probable Causes]

It is highly probable that the train departed after rainfall reached the control value at which operation should have been suspended, collided with earth and sand that had accumulated on the tracks, and derailed after running over them.

In the investigation into this accident, the JTSB analyzed the handling of the train, which was allowed to run despite rainfall reaching the control value for the suspension of operations. As a result, the JTSB mainly found the following points:

- When the rain gauge reached the control value for suspension of operation, the train should not have been able to run near the accident site, but since the train driver did not receive any instructions from the dispatcher to drive slowly or suspend operation, it is probable that the train ran near the accident site at normal speed.
- When the rain gauge reached the control value for suspension of operation, the dispatcher should take measures to regulate driving promptly, however, it is highly probable that the practice was such that the restrictions were not implemented based on dispatcher's own judgement, instead, only after receiving instructions from the head of facility and rolling stock depot.
- On the other hand, the head of facility and rolling stock depot should have been monitoring the rain gauge monitoring device (see Fig. 3), but instead was discussing the operation plan at a distant location and did not pay close attention to the rain gauge monitoring devices.
- It is likely that it had become standard practice to observe the situation before taking action when the rain gauge reached the control value, rather than immediately implementing operational restrictions. This indicates a lack of awareness of the importance of ensuring train safety during rainfall, and there was likely insufficient understanding of the dangers posed by rainfall when it reached control values.

Based on the above investigation results, the JTSB recommended that Tosa Kuroshio Tetsudo Co., Ltd. establish a system enabling dispatchers who constantly monitor driving conditions to promptly notify train drivers of speed restrictions when the control value for implementing speed restrictions is observed, in order to prevent recurrence of accidents. Additionally, the JTSB recommended the company re-examine its regulations for handling trains during rainfall by comparing them with those of other railway operators, make necessary reviews, and revise its regulations to ensure the safe transportation of trains.

Fig. 1: Situation of the accident site

Fig. 2: Investigation status

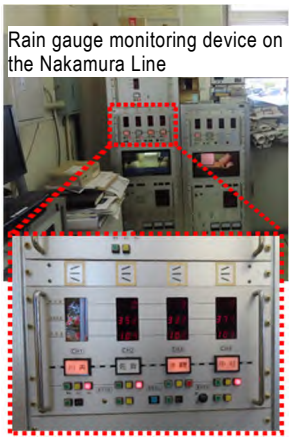


Fig. 3: Rain gauge monitoring device

6. Investigation Related to the Derailment Caused by a Freight Train with a Broken Axle

[Summary of the Accident]

On July 24, 2024, the locomotive (leading car) of a 24-car freight train bound for Tokyo Freight Terminal Station that departed from Fukuoka Freight Terminal Station derailed while running through the premises of Shin-Yamaguchi Station on the Sanyo Line. There was only one driver on board the Train, who was not injured.

[Implementation Status of Investigation, etc.]

The JTSB is carefully investigating and analyzing information obtained from oral hearings with relevant parties and reports on damage to cars and facilities, etc.

In this accident, it was confirmed that the axle of the derailed car were broken. Since axle breakage is extremely rare, the JTSB will analyze the mechanism of axle breakage. For this reason, the JTSB has appointed expert advisors* and is conducting investigations while gaining on their expertise.

*Expert advisors are part-time committee members appointed from among external academic experts based on Article 14 of the Act for Establishment of the Japan Transport Safety Board when specialized knowledge is necessary for investigations.

7 Publication of the Marine Accident Investigation Report on the Diving Ship Capsized While Sailing ~ Necessity of Initiatives to Ensure Safety on Diving Ships ~

[Summary of the Accident]

On August 16, 2023, the Diving Ship Crystal M (the ship), with the Master, 12 diving passengers and 7 instructors, was proceeding off the northwest coast of Shimojishima Island in Miyakojima City, Okinawa Prefecture, when it flooded and capsized.

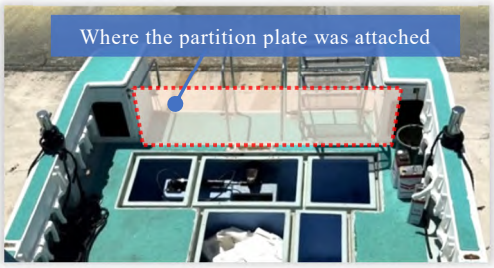

The driving ship

[Probable Causes]

This accident occurred when the ship experienced severe wind, rain, and high waves while passengers were diving. Since the ship continued to anchor by letting go anchor from the stern, waves crashed onto the upper deck, seawater and other substances flowed into the engine room from the stern storage, etc. Furthermore, as the Master continued to sail with more passengers on board and the stern lowered, it is probable that the crashing waves caused the ship to flood and capsize.

In addition to the factors that led to the capsizing of the ship, the investigation into the accident also analyzed the hull structure and safety management unique to diving ships. As a result, the following items were mainly found:

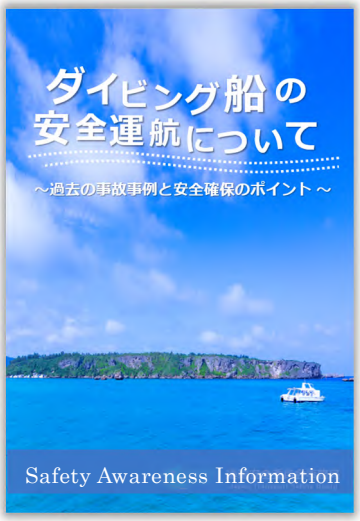
- By changing the stern shape (removal of the partition plate), the structure became more vulnerable to crashing waves.
- After repairing the hydraulic piping, the penetration was left open without being closed.
- The Master did not obtain information on weather and sea conditions after departure and could not make decisions such as evacuation.
- It was possible that the stern part of the ship sank easily, which affected the deterioration of stability, as approximately 1,000 kg of diving equipment was loaded mainly on the stern deck.


Where the partition plate was attached


Loading status of diving equipment on board the ship (reference)

*Photos taken before the accident

Additionally, the following items were found in the investigation of this accident, and it is recommended that multi-layered guidance and enlightenment regarding the operation of diving ships be provided in the future:



- The change in the stern shape was subject to temporary inspections, but it was overlooked due to the lack of suggestions from shipowners and indications during inspections. There was a need to increase the effectiveness of ship inspections, etc.
- The operators did not receive direct guidance and enlightenment from relevant organizations, and the initiatives of relevant administrative agencies regarding diving ships were insufficient.

Based on the results of the above investigations, in order to widely disseminate the necessity of initiatives to ensure the safety of diving ships, the JTSB requested related organizations to disseminate the contents of the investigation report. At the same time as the publication of the investigation report, the JTSB issued the safety awareness materials on the right.

8. Publication of the Investigation Report on Grounding of Passenger Ferry -Check Your Ship's Position Even When Drifting-

[Summary]

On March 26, 2024, when the passenger ferry was drifting offshore north of the Otorii Gate of Itsukushima Shrine on Miyajima Island in Hatsukaichi City, Hiroshima Prefecture, it was pushed by the wind and ran aground in shallow waters.

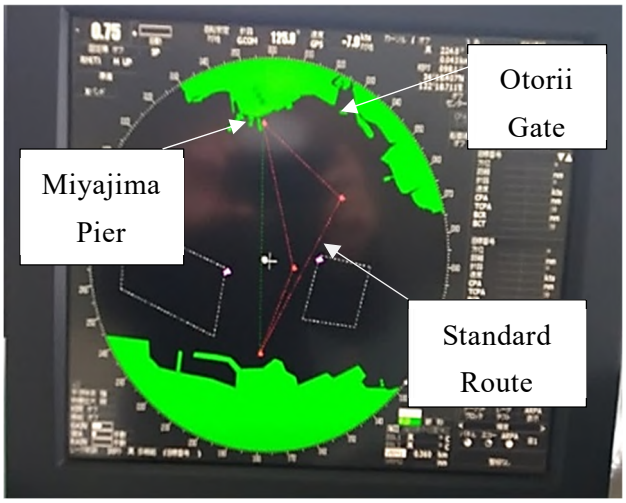
[Probable Causes]

It is probable that this accident occurred when the passenger ferry was exposed to winds of approximately 8 m/s while the Master was focused on the docking and undocking of other ships ahead of him and continued to drift without checking the ship's position visually or by radar, etc. Therefore, the Master did not realize that the ferry was being swept away by wind pressure, allowing it to continue drifting toward the Otorii Gate and run aground in shallow waters.

The sea route where the accident occurred is connecting Miyajimaguchi and Miyajima, and is the main access route to Miyajima, home to the World Heritage Site Itsukushima Shrine, etc. The sailing time is approximately 10 minutes, with two to three passenger ferries operating about four times per hour. When other passenger ferries were docked at Miyajima Pier, passenger ferries that arrived later sometimes drifted and waited near the pier.

The investigation into this accident examined the reasons why the Master continued to drift without checking the ship's position while facing winds that were pushing the ship toward the Otorii Gate. Additionally, a passenger ferry ran aground in almost the same location in February 2020, and the JTSB confirmed the content of measures to prevent recurrence and their implementation status.

The Master had previously waited while drifting in the waters near the Otorii Gate on the standard route when other passenger ferries were docked at Miyajima Pier and had never felt any danger of being swept away by the wind during that time. He did not expect to be swept away to the vicinity of the Otorii Gate at the time of this accident.



Additionally, after the ship was stranded in February 2020, the passenger ferry operation company displayed the standard route on the passenger ferry's radar and instructed passenger ferries not to navigate in the waters near the Otorii Gate of the standard route when visibility was restricted, such as during fog, but allowed them to drift in the same area. However, the operation company had not considered the precautions to take when drifting in the area.

When there is a risk of wind pressure or other

factors, a Master must not be optimistic based on his/her experience or other factors, thinking that the ship will not be swept away, but must check the ship's position visually and by radar, etc. Furthermore, to improve navigation safety, passenger ship operators are required to investigate the risks of grounding and other hazards in the waters they navigate, consider safety measures, including prohibiting entry, and have crew members implement these safety measures.

It is expected that the publication of this investigation report will encourage passenger ship operators to investigate dangers in the waters they navigate and consider safety measures, and that safety measures will be surely implemented by crew members to prevent the recurrence of similar accidents.

9. Holding the First Railway Accident Investigation International Forum (RAIIF)

In the field of railway accident investigation, there was no public framework established by international organizations like those for conventional aircraft and ships. For this reason, Okumura, who is the Board Member and a Director of Railway Subcommittee of the JTSB took the leading role and established the Railway Accident Investigation International Forum (RAIIF) based on Japan's suggestion, building on the international achievements and connections that have been cultivated to date.

The memorable first forum was held in Tokyo, was chaired by Okumura, and was conducted as follows:

<Summary>

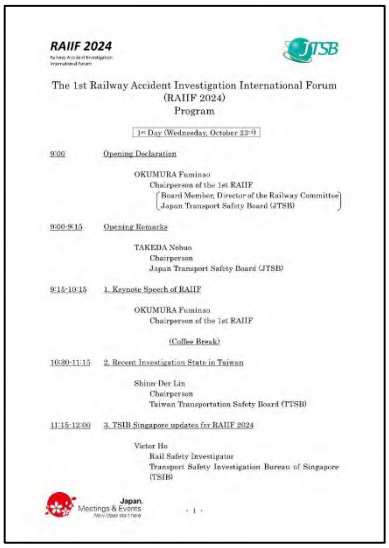
○Date: October 23 (Wednesday) to 25 (Friday), 2024

1st day: Keynote speech (Chairperson Okumura)
Panel discussion with leaders from each country and region presenting their initiatives

2nd day: Distinctive accident investigation cases, safety initiatives, etc.

3rd day: Technical tour

○Participants: A total of 125 people (including the top 5) from 11 countries and regions around the world including Japan (see below):
Japan, Australia, Taiwan, Singapore, South Korea, Sweden, UK, Indonesia, Netherlands, New Zealand, Malaysia


RAIIF 2024

The 1st Railway Accident Investigation International Forum (RAIIF 2024)
Program

1st Day (Wednesday, October 23rd)

9:00 Opening Declaration
OKUMURA Fuminao
Chairperson of the 1st RAIIF
Board Member, Director of the Railway Committee
Japan Transport Safety Board (JTSB)

9:00-9:15 Opening Remarks
TAKEDA Nobuo
Chairperson
Japan Transport Safety Board (JTSB)

9:15-10:15 1. Keynote Speech of RAIIF
OKUMURA Fuminao
Chairperson of the 1st RAIIF

(Coffee Break)

10:30-11:15 2. Recent Investigation State in Taiwan
Shinn Der Lin
Chairperson
Taiwan Transportation Safety Board (TTSB)

11:15-12:00 3. TSIB Singapore updates for RAIIF 2024
Victor Ho
Rail Safety Investigator
Transport Safety Investigation Bureau of Singapore
(TSIB)

Japan. Meetings & Events

Program (Cover)

On the first day, in his keynote speech, the Okumura gave a presentation on the purpose of holding the RAIIF, a summary of railway accident investigations around the world, and Japan's initiatives in international technical cooperation. Next, the leaders of each country and region gave presentations outlining their respective railways and major accident investigation cases. Additionally, a panel discussion was held on the theme of "Challenges faced by accident investigation organizations," and the summary of the discussion pointed out the "importance of initiatives to improve railway accident investigation capabilities and strengthen systems."

Keynote speech by the Chairperson Okumura

Panel discussion

Forum venue

On the second day, accident investigation organizations from each country and region gave presentations on distinctive accident investigation cases such as natural disasters, and railway operators gave presentations on their safety initiatives such as employee training.

On the third day, as a technical tour, observation and experience tours were held at the railway operator's comprehensive training center.

At the end of the forum, the Chairperson gave a "Chairperson's Summary" in which he emphasized the importance of future international cooperation and potential for development, and declared the promotion of the following initiatives:

- building a multi-platform for sharing information
- expanding technical cooperation among railway accident investigation organizations

The Statement by the Chairperson of the 1st RAIIF

The Railway Accident Investigation International Forum (RAIIF) was established on October 23, 2024, and the discussions of the 1st RAIIF were carried out on October 23-24, 2024, in Tokyo. The participants will visit actual facilities and see equipment to discuss and deepen their knowledge on October 25, 2024.

The forum was attended by 11 accident investigation authorities and other related organizations, for a total of 125 participants.

The forum featured 9 presentations including a panel discussion on the first day and 13 presentations on the second day, and very lively discussions were held on the policies of each accident investigation authority, considerations in accident investigation cases, safety initiatives by railway operators, and other subjects.

Based on the presentations and panel discussions, the chairperson of the 1st RAIIF emphasized the importance of international cooperation in the field of railways and its potential for future development, and declared that the following initiatives will be promoted:

1. Establish a multinational information sharing platform to further strengthen networking among the heads of railway accident investigation authorities and their counterparts; and
2. Expand technical cooperation among railway accident investigation authorities.

The next RAIIF will be held in Taiwan in 2025. We hope to see you again in Taiwan and have lively discussions.

October 24, 2024
Fuminao Okumura
Chairperson of the 1st RAIIF

Chairperson's summary speech

In this way, through the forum, valuable presentations and lively discussions were conducted by relevant organizations from countries and regions around the world. The first forum ended successfully, with participants sharing information that will be useful for future railway accident investigations and strengthening relationships between organizations, meaningfully contributing to improving railway safety worldwide.

Handover of the chairperson's hammer from the Chairperson Okumura (right) to the Chairperson Lin (left) of the Taiwan Transportation Safety Board (TTSB)

The next forum is scheduled to be held in Taiwan in 2025 and will continue to be held in the future.

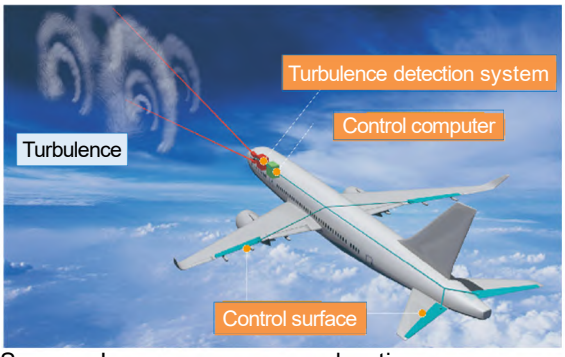
Through its participation in this forum, the JTSB will continue to provide and obtain information useful for railway accident investigations and to strengthen cooperation with relevant organizations around the world, thereby contributing to improving railway safety not only in Japan but also around the world.

10 Publishment of the Japan Transport Safety Board Digest Nos. 44 and 45 - Understanding dangerous situations and appropriate safety management and safety measures, etc. -

The JTSB publishes the JTSB Digests (hereafter referred to as the “Digest”), which analyzes the contents of similar accidents and incidents, and includes preventive measures.

The digest published in March 2024, "- Preparing for sudden turbulence during flight - Preventing accidents caused by aircraft turbulence," on aircraft turbulence-related accidents in which passengers and cabin crew members are injured, analyzes investigation reports on similar accidents that have occurred over the past 20 years up to 2023, and introduces measures necessary to prevent the recurrence of similar accidents, statistical analysis results, accident investigation cases, and airlines' initiatives to prevent accidents.

It was found that aircraft turbulence-related accidents accounted for more than half of all aircraft accidents involving large aircraft and accounted for the majority of aircraft accidents involving serious injuries. Additionally, many of the injuries occurred to people outside their seats, and in particular, cabin crew members were injured outside their seats when the seat belt signs were off. For this reason, to prevent accidents, "Turbulence prediction" and "Response to turbulence" must be carried out in a timely and appropriate manner.

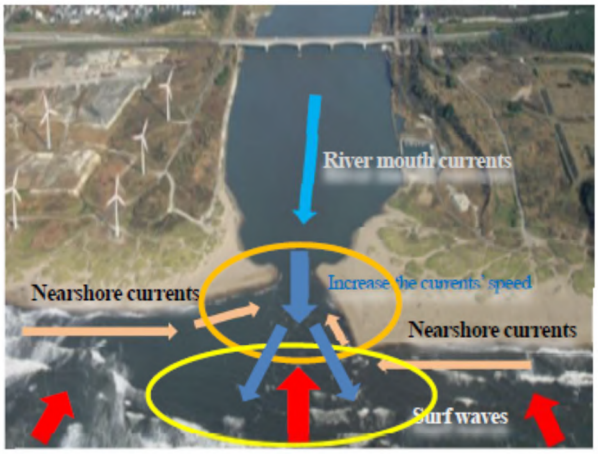


Source: Japan aerospace exploration agency

Conceptual diagram of aircraft turbulence reduction technology

The JTSB has clearly summarized the key points to prevent similar accidents, so please make use of it to further enhance safety in the cabin.

Then in April of the same year, regarding the importance of understanding and addressing issues related to the characteristics of operational sea areas, the JTSB published the digest "Preventing major accidents involving small passenger ships - Are you aware of the characteristics of the operational areas?", which introduced universal safe navigation principles and lessons drawn from past cases and prevention measures for small passenger vessels.



Omono River estuary, Akita Prefecture

(photo processing)

To ensure safe navigation, masters and crew must fully understand their “vessel’s” inherent traits

and handling quirks, such as hull structure and operability, and gain firsthand knowledge of the features and risks of “sea” where operators sail their own ships.

Additionally, to continuously improve the safety management system, it is also important for top management to take the lead in developing "personnel," "equipment," and "systems."

Please use this digest to learn about the characteristics of each “sea” area where you conduct your activities and what measures are necessary to ensure the safety of passengers.

For the digest, please also see Chapter 6 (page 112).