

## Chapter 2 Summary of major investigation activities in 2018

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 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.

### 1 Major accidents and serious incidents occurred in 2018 for which investigations commenced

The accidents listed below were the primary subject for investigation of the various accidents occurred in 2018.

#### (1) Aviation mode

- **Crash of an AS350B3 Eurocopter (rotorcraft) belonging to Excel Air Service Inc. near the sealine some 40 km northwest of Naha Airport <Occurred on June 7>**
- **Cabin attendant injury by shaking of aircraft Injuries sustained by cabin crew as a result of turbulence on board a Boeing 777-300 (large aeroplane) belonging to Japan Airlines some 80 km north of Sendai Airport at an altitude of approximately 9,000 meters < Occurred on June 24>**
- **Crash of a Bell 412EP helicopter (rotorcraft) belonging to the Gunma Disaster Relief Aviation Corps in the mountains of Nakanojo-machi, Agatsuma-gun, Gunma Prefecture < Occurred on August 10>**
- **Serious incident involving damage to the engine of a Boeing 767-300 (large aeroplane) belonging to Japan Airlines some 10km west of Kumamoto Airport at an altitude of approximately 1,800 meters < Occurred on May 24>**
- **Serious incident involving damage to the right landing gear of a Boeing 777-300 (large aeroplane) belonging to Korean Air on the runway at Narita International Airport < Occurred on June 29>**



Damage to the right landing gear of a Korean Air plane

14 aircraft accidents were subject to investigation, with investigations into the causes of 35 accidents performed, including 21 ongoing accident investigations from the previous year. Further, 12 aircraft serious incidents were subject to investigation, with investigations into the causes of 34 serious incidents performed, including 22 ongoing serious incident investigations from the previous year.

## (2) Railway mode

- **Train derailment of a Japan Freight Railway Company train inside Tomamu Station on the Sekisho Line (Shimukappu Village, Hokkaido) <Occurred on February 24>**
- **Train derailment of a Keiyorinkai train inside Soga Station on the Rinkai Line (Chiba City, Chiba Prefecture) < Occurred on June 16>**
- **Level crossing accident (class 4) on the Iwasakinoichi level crossing (Fukuyama City, Hiroshima Prefecture) between Michinoue Station and Managura Station on the Fukuen Line operated by West Japan Railway Company <Occurred on September 27>**
- **Dangerous trouble in vehicle serious incident between Kasugabaru Station and Zasshonokuma Station (Fukuoka City, Fukuoka Prefecture) on the Tenjin Omuta Line operated by the Nishi-Nippon Railroad Co., Ltd. < Occurred on May 15>**
- **Dangerous damage in facilities serious incident at Shin-sapporo Station on the Chitose Line (Sapporo City, Hokkaido) operated by the Hokkaido Railway Company < Occurred on November 9>**



Overturned signal light (inside Shinsapporo Station)

11 railway accidents were subject to investigation, with investigations into the causes of 26 accidents performed, including 15 ongoing accident investigations from the previous year. Further, two railway serious incidents were subject to investigation, with investigations into the causes of three serious incidents performed, including one ongoing serious incident investigation from the previous year.

## (3) Marine mode

- **Collision between the container ships NYK VENUS and SITC OSAKA (offshore Rokko Island, Kobe City, Hyogo Prefecture) <Occurred on May 4>**
- **Contact (with a quay) involving the Ferry SAKURAJIMA MARU No.18(Sakurajima Ferry landing quay, Sakurajima Yokoyamacho, Kagoshima City, Kagoshima Prefecture) <Occurred on July 28>**
- **Contact (with a bridge) involving the oil tanker HOUNMARU (Kansai International Airport Connecting Bridge in Senshu Port, Osaka Prefecture) <Occurred on September 4>**
- **Contact (with a bridge) involving the cargo ship ERNA OLDENDORFF (near the middle of Oshima Long Bridge in Yamaguchi Prefecture) <Occurred on October 22>**
- **Serious incident involving the suspension of service of the ferry KONPIRA 2 (loss of power) (Takamatsu Port, Takamatsu City, Kagawa Prefecture) <Occurred on July 12>**



Oil tanker HOUNMARU after contact with a bridge

828 marine accidents were subject to investigation, with investigations into the causes of 1,353

accidents performed, including 531 ongoing accident investigations from the previous year (excluding six incidents deemed to not be an accident as a result of investigations). Further, 130 marine incidents were subject to investigation, with investigations into the causes of 221 incidents performed, including 91 ongoing incident investigations from the previous year.

## 2 Major accidents and serious incidents for which investigation reports were published in 2018

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



Engine fire on a Korean Air plane

### (1) Aviation mode

- **Engine fire during take off roll involving a Boeing 777-300 (large aeroplane) belonging to Korean Air at Tokyo International Airport <Occurred on May 27, 2016>**
- **Crash of a Bell 412EP helicopter (rotorcraft) belonging to the Nagano Fire and Disaster Prevention Aviation Center on Mt. Hachibuse, Matsumoto City, Nagano Prefecture <Occurred on March 5, 2017>**
- **Crash of a Cessna 172P airplane (small aeroplane) belonging to New Central Airservice Co., Ltd, into the vicinity of the top of Mt. Shishi-dake in the Tateyama mountain range <Occurred on June 3, 2017>**
- **Serious incident involving a Bombardier DHC-8-402 airplane (large aeroplane) belonging to ANA WINGS Co., Ltd, overrunning the runway at the New Chitose Airport <Occurred on January 19, 2017>**
- **Serious incident of collision between parts dropped from Boeing 777-200 (large aeroplane) belonging to KLM Royal Dutch Airlines and facilities in Osaka City, Osaka Prefecture <Occurred on September 23, 2017>**

(For more details, see pages 38~42 of “Feature 2 Summaries of major aircraft accident and serious incident investigation reports (case studies)”

Completed investigation reports into 18 aircraft accidents and 19 serious aircraft incidents have been published.

Of the investigation reports published, the Japan Transport Safety Board gave its recommendations on August 30 to the Minister of Land, Infrastructure and Transport concerning the “Crash of Cessna 172P airplane (small aeroplane) belonging to New Central Airservice Co., Ltd, into the vicinity of the top of Mt. Shishi-dake in the Tateyama mountain range”.

The Japan Transport Safety Board also presented its opinion on the “Crash of a Bell 412EP helicopter (rotorcraft) belonging to the Nagano Fire and Disaster Prevention Aviation Center on Mt. Hachibuse, Matsumoto City, Nagano Prefecture” to the Minister of Land, Infrastructure and Transport on October 25.

(For more details, see page 60 of “Chapter 1 Summary of recommendations and opinions issued in 2018”)

### (2) Railway mode

- **Train derailment of Tojo Main Line of Tobu Railway Company in the premises of Naka-itabashi station, (Itabashi-ku, Tokyo) <Occurred on May 18, 2016>**
- **Train derailment of Watarase Keikoku Line of Watarase Keikoku Railway Co., Ltd., between Hanawa Station and Mizunuma Station on the Watarase Keikoku Line (Kiryu City, Gunma Prefecture) <Occurred on May 22, 2017>**
- **Train derailment of a Japan Freight Railway Company train inside the Kitairie Signal Station on the Muroran Line (Toyako own, Abuta-gun, Hokkaido) <Occurred on February 23, 2017>**
- **Railway traffic accident involving property damage by a Kyushu Railway Company train inside Noogata Station on the Chikuhou Line (Noogata City, Fukuoka Prefecture) <Occurred on September 18, 2017>**
- **Level crossing accident concerning a Central Japan Railway Company train between Kasado Station and Idagawa Station on the Kansai Line (Suzuka City, Mie Prefecture) <Occurred on January 16, 2018>**

First axle of the front carriage of the second car Left wheel



Watarase Keikoku Railway Train derailment

(For more details, see pages 43~47 of “Feature 2 Summaries of major railway accident and serious incident investigation reports (case studies)”

Completed investigation reports into 15 railway accidents have been published.

Of the investigation reports published, the Japan Transport Safety Board presented its opinion to the Minister of Land, Infrastructure and Transport on June 28, with due consideration given to the opinions gleaned from accidents investigations into the four train derailments occurring as a result of an increasing track gage seen in the period from October 2016 to May 2017, including the “train derailment of a Watarase Keikoku Railway train on the Watarase Keikoku Line”, with the view to preventing similar accidents on regional railways.

(For more details, see pages 62~76 of “Chapter 1 Summary of recommendations and opinions issued in 2018”)

### (3) Marine mode

- **Fire accident on board the passenger ferry SUN FLOWER DAISETSU (South shore off Tomakomai Port, Hokkaido) <Occurred on July 31, 2015>**
- **Collision between the container ship ESTELLE MAERSK and the container ship JJ SKY (Kobe Central Sea-lane, Kobe-ku, Hanshin Port) <Occurred on June 7, 2016>**
- **Fire on board the cargo ship TAI YUAN (Quay 16, Hakozakifuto, Hakata Port, Fukuoka City, Fukuoka Prefecture) <Occurred on April 24, 2017>**
- **Contact with an approach light beacon involving the passenger ship SORA (Kobe Dairoku-ku, Hanshin Port) <Occurred on July 26, 2017>**



Fire on board the cargo ship TAI YUAN

(For more details, see pages 48~52 of “Feature 2 Summaries of major marine accident investigation reports (case studies)”

Completed investigation reports into 757 marine accidents and 131 incidents have been published.

Of the investigation reports published, the Japan Transport Safety Board gave recommendations on December 20 concerning the “Contact with an approach light beacon involving the passenger ship SORA ” to OM Kobe (the vessel owner).

Further, the Japan Transport Safety Board gave safety recommendations concerning the “Fire on board the cargo ship TAI YUAN” to TAI YUAN (HONG KONG) INTERNATIONAL SHIPPING CO., LTD. (the vessel owner).

Additionally, the opinion of the Japan Transport Safety Board was presented to the Director General of the Fisheries Agency on February 22 concerning the fatal accident involving a visiting angler on board the fishing vessel KASUGAMARU.

A further 176 collision accidents involving recreational fishing vessels were analyzed, based on which the Japan Transport Safety Board advised prefectural governors to implement measures ensuring the safe operation of such vessels, such as appropriate lookout measures to be conducted by captains of such recreational fishing vessels for accident prevention, and presented its opinion to the Director General of the Fisheries Agency on July 24 concerning requests for a review into the means of ensuring that such service operators implement said safety measures.

(For more details, see pages 85~87 of “Chapter 1 Summary of recommendations and opinions issued in 2018”)

### 3 Accidents and serious incidents for which progress reports were published in 2018

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

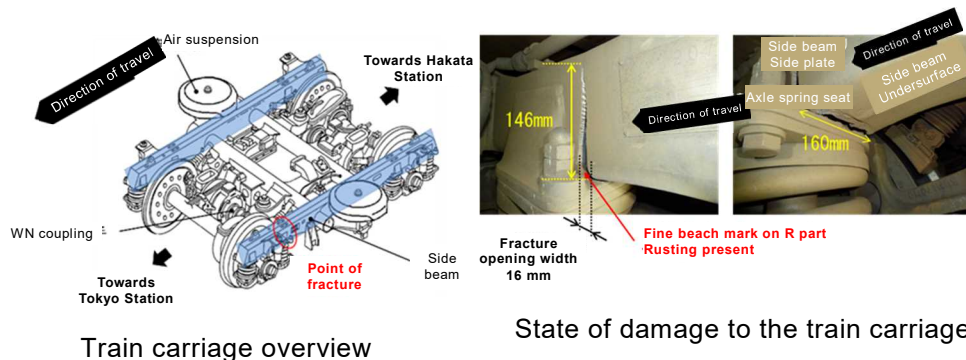
#### (1) Railway mode

##### - Serious incident involving “Nozomi No. 34” on the Tokaido Shinkansen (car belonging to the West Japan Railway Company) <Occurred on December 11, 2017>

With regard to this serious railway incident under investigation, a progress report was made to the Minister of Land, Infrastructure and Transport on June 28 and published online concerning the details on the course of investigation following the uncovering of new information deemed useful for preventing the recurrence of similar circumstances concerning cracks found in train carriages.

Further, in light of matters presented in this progress report, the opinion of the Japan Transport Safety Board was presented to the Minister of Land, Infrastructure and Transport on June 28 concerning recommended measures for preventing such accidents, etc.

(For more details, see pages 77~80 of “Chapter 1 Summary of recommendations and opinions issued in 2018”)



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

<http://www.mlit.go.jp/jtsb/railway/rep-inc/keika180628.pdf>

#### (2) Marine mode

- **Collision involving the oil tanker HOUNMARU (with a bridge) <Occurred on September 4, 2018>**

This marine accident under investigation is expected to require further time to compile the final report due to the need to conduct further fact-finding and analysis, and to hear the opinions of parties relevant to the cause to this accident.

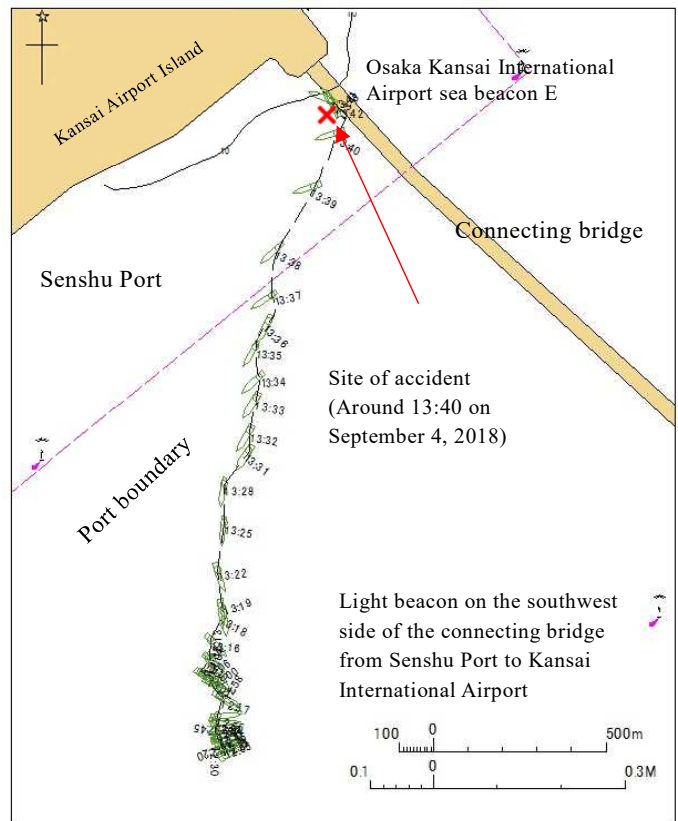
However, from the perspective of preventing similar accidents, a progress report was presented to the Minister of Land, Infrastructure and Transport on December 20 and published online, providing a general overview of the accident, a timeline of the accident investigation and facts verified at the current time.

o **Summary of the accident included in the progress report**

The oil tanker HOUNMARU (hereafter, “the vessel”), with the captain and 10 other crew members on board, collided with the bridge connecting the Kansai International Airport (hereafter, the “connecting bridge”) at around 13:40 on September 4, 2018 after strong winds dragged the vessel while anchored offshore southeast of Senshu Port. A typhoon warning had been issued for the Inland Sea of Japan, including Osaka Bay, at the time of the accident following the approach of Typhoon Jebi.

The collision crushed the deck and living quarters on the starboard bow of the vessel, and the connecting bridge incurred damage including the bending, fracturing and grazing, etc. of the bridge structure, the toppling of railway girder wire poles, malformation of the rail track, etc. and damage to the gas piping. There were no casualties among the crew members on board.

Appended map 1 Navigation course (general view)



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

[http://www.mlit.go.jp/jtsb/ship/rep-acci/2018/keika20181220-0\\_2018tk0013.pdf](http://www.mlit.go.jp/jtsb/ship/rep-acci/2018/keika20181220-0_2018tk0013.pdf)