### Chapter 2 Summary of major investigation activities in 2019

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 2019 for which investigations commenced

The accidents and serious incidents also occurred in 2019. The primary investigations which the JTSB commenced are listed below:

#### (1) Aviation mode

- An accident to privately owned TL-2000 STING carbon (ultralight airplane) near Shinji, Kasumigaura City, Ibaraki Prefecture < Occurred on October 20>
- An accident to Boeing 787-8 (large aircraft) operated by All Nippon Airways Co., Ltd., at an altitude of about 5,500 meters, about 140 kilometers northeast of Beijing, which two passengers were injured due to the shaking <Occurred on August 15>
- An accident to Aerospatiale AS350B helicopter (rotorcraft), operated by S.G.C Saga Aviation Co., Ltd., in a paddy field in Kuchido, Chikusei City, Ibaraki Prefecture, during pesticide spraying work <Occurred on July 29>
- A serious incident that an Air Self-Defense Force aircraft (JASDF) entered the runway of Misawa Airfield despite an instruction to hold short of runway; when an aircraft (large aircraft) operated by J-Air Co.,Ltd., was approaching the runway at an altitude of about 190 meters, about 2.8 kilometers west of the threshold of the runway < Occurred on October 3>
- A serious incident to Embraer ERJ170-200STD (large aircraft), operated by Fuji Dream Airlines Co., Ltd., deviated from the runway of Yamagata Airport during take-off roll < Occurred on April 23>

In 2019, 12 aircraft accidents were subject to investigation, with investigations into the causes of 29 accidents conducted, including 17 ongoing accident investigations from the previous year. Further, 17 aircraft serious incidents were subject to investigation, with investigations into the causes of 32 serious incidents conducted, including 15 ongoing serious incident investigations from the previous year.

#### (2) Railway mode

- Level crossing obstruction accident at Yamanone Level Crossing (Class 4), East Japan Railway Co., Ltd., Zushi Station (Zushi City, Kanagawa) < Occurred on March 21>
- Yokohama Seaside Line Co., Ltd., on the premises of Shin-Sugita Station, Kanazawa Seaside Line (Yokohama City, Kanagawa Prefecture), Other accident with casualties < Occurred on June 1>
- Transportation Bureau City of Yokohama Line 1 (Blue Line) between Shimoiida Station and Tateba Station (Yokohama City, Kanagawa Prefecture) Train derailment accident <Occurred on June 6>
- Nankai Electric Railway Co., Ltd. Suminoe Inspection Depot (Osaka City, Osaka Prefecture)
   Serious Incident of Vehicle Failure < Occurred on August 24>
- Keihin Kyuko Co., Ltd. between Kanagawa-shimmachi Station and Nakakido Station (Yokohama City, Kanagawa Prefecture) Kanagawa-shimmachi Daiichi Level Crossing (Class 1) Train derailment accident <Occurred on September 5>

In 2019, 17 railway accidents were subject to investigation, with investigations into the causes of 28 accidents conducted, including 11 ongoing accident investigations from the previous year. Further, two railway serious incidents were subject to investigation, with investigations into the causes of 5 serious incidents conducted, including 3 ongoing serious incident investigation from the previous year.

#### (3) Marine mode

- Collision of Passenger ship GINGA (Underwater Floaters) (off the east northeast of Himezaki Lighthouse, Sado City, Niigata Prefecture) < Occurred on March 9>
- Cargo ship SENSHOMARU and Cargo ship SUMIHOMARU Collision (off the south of Inubosaki Lighthouse, Choshi City, Chiba Prefecture) < Occurred on May 26>
- Capsizing of Fishing vessel KEIEI MARU No. 65 (off the east of Cape Nosappu-Misaki, Nemuro City, Hokkaido Prefecture) < Occurred on September 17>
- Cargo ship BUNGO PRINCESS collision (bridge) accident (Minamihonmoku Hama Road, Yokohama Area, Keihin Port) < Occurred on September 9>
- Passenger injury accident on Passenger ship NANKYU No. 10 (off the northwest of Minamiosumi Town, Nejime Port, Kagoshima Pref.) < Occurred on December 2>

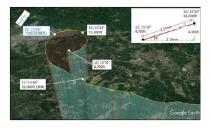
In 2019, 845 marine accidents were subject to investigation, with investigations into the causes of 1,434 accidents conducted, including 599 ongoing accident investigations from the previous year (excluding 10 incidents deemed to not be an accident as a result of investigations). Further, 230 marine incidents were subject to investigation, with investigations into the causes of 307 (excluding 10 incidents deemed to not be an incident as a result of investigations) incidents conducted, including 87 ongoing incident investigations from the previous year.

# 2 Major accidents and serious incidents for which investigation reports were published in 2019

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.

#### (1) Aviation mode

- Rotorcraft accident, damage to airframe due to hard landing at Sendai Airport, Miyagi Prefecture, operated by Japan Coast Guard Miyagi Branch < Occurred on February 27, 2019>
- A serious incident involving Japan Airlines Aircraft. Damage to engine at Tokyo International Airport <Occurred on September 5, 2017>



- A serious incident involving a Korean Air Aircraft runway 06L at Narita International Airport, disabled to continue taxiing due to fractured landing gear when landing <Occurred on June 29, 2018>
- Privately owned Aircraft Crash accident due to loss of control during flight to Yamazoe Village,
   Yamabe-gun, Nara Prefecture < Occurred on August 14, 2017>
- Polar Air Cargo Aircraft serious incident, case equivalent to the overrun of runway 16L at Narita International Airport < Occurred on July 15, 2017>

(For more details, see pages 67~71 of "Chapter 3, 8 Summaries of major aircraft accident and serious incident investigation reports (case studies)"

Completed investigation reports into 15 aircraft accidents and 11 serious aircraft incidents have been published.

Of the investigation reports published, the Japan Transport Safety Board gave its recommendations on July 25 to the Minister of Land, Infrastructure and Transport concerning the "Accident involving privately owned Socata TBM700".

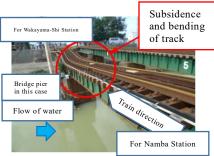
(For more details, see page 20 of "Chapter 1 Summary of recommendations and opinions issued in 2019")

#### (2) Railway mode

- Nankai Electric Railway Co., Ltd. Nankai Main Line between Tarui Station and Ozaki Station (Hannan City, Osaka Prefecture)
   Train derailment accident < Occurred on October 22, 2017>
- Serious incident on the premises of Nagoya Station on the Tokaido Shinkansen line of West Japan Railway Company (Nagoya City, Aichi Prefecture) < Occurred on December 11, 2017>
  - Derailment accident on the premises of Tomamu Station, Sekisho

    Line, Japan Freight Railway Co., Ltd. (Shimukappu Village, Yufutsu-gun, Hokkaido Prefecture)

    <Occurred on February 24, 2018>



- Level Crossing Accident on the Fukuen Line between Michinoue Station and Managura Station of West Japan Railway Company (Fukuyama City, Hiroshima Prefecture). < Occurred on September 27,2018>
- Hokkaido Railway Co., Ltd. Shin-Sapporo Station, Chitose Line (Sapporo City, Hokkaido Prefecture) Facility Damage Railway Serious Incident < Occurred on November 9, 2018>

(For more details, see pages 100~105 of "Chapter 4, 9 Summaries of major railway accident and serious incident investigation reports (case studies)"

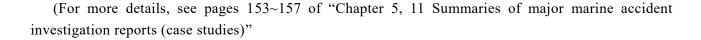
Completed investigation reports into 13 railway accidents and three serious railway incidents have been published.

Of the investigation reports published, the Japan Transport Safety Board presented its opinion to the Minister of Land, Infrastructure and Transport on January 31.

(For more details, see pages 25~28 of "Chapter 1 Summary of recommendations and opinions issued in 2019")

#### (3) Marine mode

- Chemical tanker GOLDEN SUNNY HANA explosion <Occurred on April 8, 2018>
- Oil tanker HOUUNMARU bridge collision accident <Occurred on September 4, 2018>
- Fishing vessel SEIRYOMARU No. 3 Injury accident <Occurred on September 14, 2018>
- Fatal accident of cargo ship ERIK crew < Occurred on September 18, 2018>
- Cargo ship ERNA OLDENDORFF bridge collision accident < Occurred on October 22, 2018>



Completed investigation reports into 838 marine accidents and 162 incidents have been published.

Of the investigation reports published, the Japan Transport Safety Board gave recommendations to Tsurumi Sunmarine Co., Ltd. on April 25 concerning the "Oil tanker HOUUN MARU collision (bridge) accident".

Besides,safety recommendations were also made to Krey Schiffahrts GmbH & Co. KG on February 28 concerning the Fatal accident of cargo ship ERIK crew, to HNCC CO., LTD. on March 28 concerning Chemical tanker GOLDEN SUNNY HANA explosion, to OLDENDORFF Carriers GmbH & KG and Authorities of Malta on October 31 concerning the Cargo Ship ERANA OLDENDORFF Collision (Bridge) Accident , and to CREDIT OCEAN SHIPPING CO., LTD. on December 19, concerning Cargo Ship MARINA Collision (Seawall) Accident.

In addition, on August 29, the Japan Transport Safety Board expressed its opinion to the Director-General of the Fisheries Agency regarding the accident of injury to the crew of the fishing vessel SEIRYOMARU No. 3.

(For more details, see pages 21~35 of "Chapter 1 Summary of recommendations and opinions issued



in 2019")

### 3 Accidents and serious incidents for which progress reports were published in 2019

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) Marine mode

#### Cargo ship ERNA OLDENDORFF collision (bridge) accident < Occurred on October 22, 2018>

Regarding the cargo ship ERNA OLDENDORFF collision (bridge) accident that occurred at the Oshima Bridge on the Obatake Seto between Yanai City Yamaguchi Prefecture and Suooshima Town on October 22, 2018, the JTSB has been conducting a thorough investigation since the accident occurred. However, it was expected to take time to compile a final report. Therefore, from the viewpoint of preventing the occurrence of the same type of accident the JTSB has made public the outline of the accident, the progress of the investigation, and the factual information that has been confirmed at the present time, after submitting an interim report to the Minister of Land, Infrastructure and Transport on March 28, 2019. (The Investigation report has been published on October 22, 2019. For details, see page 157 of "Chapter 5 11 Summaries of major marine accident investigation reports (case studies)".)

\*This progress report has been published on the Japan Transport Safety Board website. http://www.mlit.go.jp/jtsb/ship/rep-acci/2019/keika20190328-0\_2018tk0020.pdf