

Feature 1: Partial revision of the Act for Establishment of the Japan Transport Safety Board

1. Background of the partial revision of the Act for Establishment of the Japan Transport Safety Board

Japan's first passenger jet, which is currently in development by Mitsubishi Aircraft Corporation, is slated to enter service in the middle of 2020. As the service begins, Japan will become a State of Aircraft Design pursuant to the Convention on International Civil Aviation. As a State of Aircraft Design, Japan is expected to meet the standards in the field of aircraft accident investigation and will need to implement appropriate accident and serious incident investigations. Accordingly, the Act for Establishment of the Japan Transport Safety Board (hereinafter referred to as "Establishment Act") has recently been revised as needed through the enactment of the Act Partially Amending the Civil Aeronautics Act and the Act for Establishment of the Japan Transport Safety Board (Act No. 38 of 2019).

2. Main points of the revision

(1) Expanding the range of reportable matters concerning aircraft accidents and serious incident by the Minister of Land, Infrastructure, Transport and Tourism

When an aircraft accident or serious incident has occurred, it is important to respond in a timely and appropriate manner by interviewing and obtaining relevant information from the persons concerned, inspecting the site as part of the initial investigation, and taking other required measures as soon as possible. To this end, a legal revision has recently been made, newly requiring the Minister of Land, Infrastructure, Transport and Tourism to immediately notify the Japan Transport Safety Board (JTSB) if someone who received a type certificate of a particular aircraft has collected defect information including accidents or serious incidents involving the same aircraft model and reported it to the Minister of Land, Infrastructure, Transport and Tourism. This is an addition to an already enforced requirement of immediate notification in cases where the Minister of Land, Infrastructure, Transport and Tourism has received a report of an aircraft accident or serious incident from the pilot of the aircraft concerned or learned of an aircraft accident otherwise. Through this measure, the JTSB will be able to obtain the latest information including that on "aircraft serious incidents" from domestic aircraft manufacturers and thereby take fast and reliable initial action when investigating an accident or serious incident.

(2) Expanding the scope of "aircraft serious incidents"

Under the Establishment Act prior to the revision, "aircraft serious incidents" to be investigated were limited to situations which occurred during an aircraft flight based on understanding in accordance with the Convention on International Civil Aviation. In recent years, however, incidents deemed to have been caused by the design of aircraft have arisen in other states, e.g., a fire starting in the equipment of an aircraft which is parked and not in the air.

As cases such as this would suggest the possibility of aircraft accidents if they happened during a flight, they are subject to investigation in the US and other major States of Aircraft Design with a view

to ensuring the safety of aircraft designed and manufactured on their soil. As Japan needs to fulfill its responsibility concerning the safe navigation of domestically built aircraft when it becomes a State of Aircraft Design, the recent revision was made to ensure that Japan could respond responsibly to requests from states where an incident has occurred by including situations such as a fire in the equipment of a parked aircraft as matters to be investigated.

(3) Clarification of parties subject to order for reports

The Establishment Act prior to the revision provided for the JTTSB taking the dispositions when it finds it necessary to conduct the investigation of an accident or serious incident, such as taking reports from the parties concerned with the accident, conducting on-the-spot inspections of the accident site and questioning the parties concerned.

Through the recent revision of the Establishment Act, “aircraft designer, etc.” (a person who designs, manufactures, services, remodels or inspects an aircraft or its equipment or parts) has been listed as one of the parties subject to such dispositions. Accordingly, “aircraft designer, etc.” has been clearly defined in laws and the JTTSB will definitely be able to take reports from aircraft manufacturers and parts manufacturers.

(4) Issuance of recommendations prior to the completion of investigation

Under the Establishment Act prior to the revision, the JTTSB was allowed to make recommendations to the Minister of Land, Infrastructure, Transport and Tourism and the parties relevant to the cause on measures to be taken to prevent accidents and to reduce damage if such accidents occur at the completion of the investigation of an accident or serious incident based on the results of the investigation.

If an accident or serious incident involving a domestically built aircraft occurs in the future, matters to be investigated will increase more than ever before and investigations may take longer as Japan needs to fulfill its responsibility as a State of Aircraft Design. As well, to ensure the safety of the same aircraft model, safety measures must be quickly implemented before the investigation is completed.

The recent revision of the Establishment Act has enabled the JTTSB to issue necessary recommendations to the Minister of Land, Infrastructure, Transport and Tourism and the parties relevant to the cause even before the completion of investigations based on the latest findings. With timely recommendations, greater effectiveness is expected.

Through the revision of the Establishment Act, the JTTSB will be able to make recommendations prior to the completion of investigations not only in aircraft accidents and serious incident but also marine and railway accidents/serious incidents.

(5) Implementation of investigation commissioned by other states where an accident or serious incident has occurred (specific investigation)

Should there be an accident or a serious incident overseas involving a domestically built passenger jet, the State where the accident or serious incident occurred (the State of Occurrence) would need to conduct an investigation in accordance with the Convention on International Civil Aviation while Japan,

as the State of Aircraft Design, would also participate in the investigation conducted by the State of occurrence, as the relevant States (the State of Design, the State of Manufacture, the State of Operator, and the State of Registry)¹ have rights to do so. In addition, as the State of Occurrence is allowed to commission all or part of the investigation to the relevant states subject to an agreement with them, it is possible that Japan, as the State of Aircraft Design, will be commissioned by the State of Occurrence to conduct a detailed investigation on the design and manufacture of the domestically built passenger jet.

“Specific investigation” newly established by the recent revision of the Establishment Act refers to a detailed investigation on designing and manufacturing of a domestically built passenger jet conducted by Japan as the State of Aircraft Design, commissioned by a State of Occurrence. According to the Convention on International Civil Aviation, a State of Aircraft Design commissioned to conduct an investigation by a State of Occurrence is not allowed to release the results of any investigation without the consent of the State of Occurrence before the State of Occurrence completes its investigation and releases a report. Accordingly, the revision of the Establishment Act provides that in case of a “specific investigation,” the JTSB shall notify the Minister of Land, Infrastructure, Transport and Tourism and publicize the investigation results when the State of Occurrence has released a report after completing its investigation, not when an investigation is completed in Japan.

3. Concerning efforts after the revision of the Establishment Act

In anticipation of the service launch of a domestically built passenger jet in 2020, the JTSB needs to fully prepare a system to respond to requests for detailed investigations on designing and manufacturing of domestically built passenger jets as Japan becomes a State of Aircraft Design.

When it comes to the development of the system, “improvement of investigation skills” and “enhancement of cooperation with overseas accident investigation authorities” are especially important.

To improve investigation skills, the JTSB needs to enhance skills to deal with the important new factor, namely, “design.” For this reason, the JTSB plans to establish an accident investigation system appropriate for a State of Aircraft Design by developing human resources through the enhancement of education and training concerning design concepts, operation, maintenance service, etc. of domestically built passenger jets. More specifically, in cooperation with aircraft manufacturers and research institutions, the JTSB will set up various opportunities: training for operating domestically built passenger jets by using a simulator, classroom lecture concerning design concepts, etc. by engineers from manufacturers and academics, and education concerning design and manufacture including inspection of actual aircraft and maintenance training.

As for the enhancement of cooperation with overseas accident investigation authorities, we have to build up “personal day-to-day relationships” with them in advance so we could immediately start working

¹ “State of Design” refers to a State which has jurisdiction over the organization responsible for type design, “State of Manufacture” refers to a state which has jurisdiction over the organization responsible for final aircraft assembly, “State of Operator” refers to a state where the operator’s activities are primarily located, or in cases where the operator does not have such a place, where the operator’s address is, and “State of registry” refers to a state where the aircraft has been registered.

with them when an accident or serious incident occurs. When we visited France in October 2018, the State of Airbus-Design, and exchanged opinions with officials of the BEA, the accident investigation authority of the State, concerning what is required as an State of Aircraft Design, the Secretary General of the organization suggested that States of Aircraft Design should keep in close touch with accident investigation authorities of States of Registry, States of Operator and states under the flight paths of aircraft made in the States of Aircraft Design on a regular basis by exchanging email addresses and mobile phone numbers. Accordingly, we are doing our own preparation.

Since its foundation, the JTSB has released accident investigation reports for 279 cases of aircraft accidents and serious incidents, and tracked down the causes of accidents while making proposals for developing safety measures and policies through issuing recommendations to the Minister of Land, Infrastructure, Transport and Tourism and the parties relevant to the cause and safety recommendations, etc. to overseas authorities.

By fully taking into account the details of the recent revision of the Establishment Act, the JTSB declares that it will improve investigation skills concerning domestically built passenger jets and enhance international cooperation as appropriate for an State of Aircraft Design, and that it will fulfill its important roles in ensuring the aviation safety by conducting accident and serious incident investigations in a timely and appropriate manner and making recommendations for the prevention of recurrence as a fair and neutral accident investigation authority.

In addition, the JTSB aims to promote the conclusion of a memorandum of bilateral cooperation concerning accident and serious incident investigations with States of Registry, States of Operator, etc. in light of states and regions where domestically built passenger jets will enter service. At the same time, the JTSB will develop a scheme through which accident investigators could mutually improve their investigation skills.

(Reference) States where passenger jets used by Japan's airlines were designed and manufactured

State of Design and Manufacture	Designer/manufacturer	Representative models
US	Boeing	B787, B777, B767, B737
France	Airbus	A380, A350, A320
Canada	Bombardier	CRJ700, CRJ200
Brazil	Embraer	ERJ190, ERJ170

Appropriate implementation of accident and serious incident investigation by the JTSB 

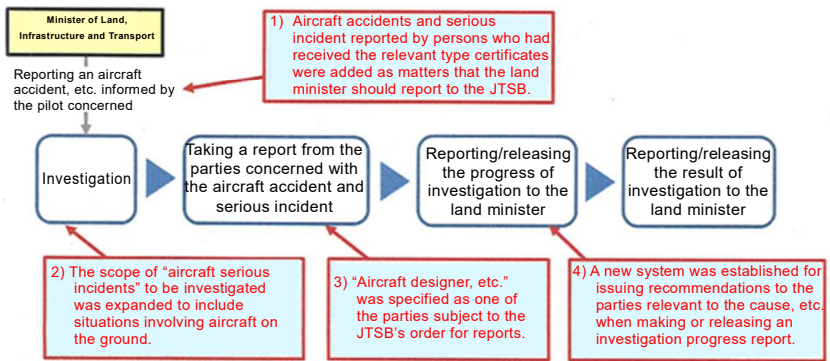
1. Revision of the Act for Establishment of the Japan Transport Safety Board

As Japan needs to fulfill its roles as a State of Aircraft Design and Manufacture in accordance with the Convention on International Civil Aviation when a domestically built aircraft enters service in 2020, the Act for Establishment of the Japan Transport Safety Board shall be revised as required.

2. Outline of the legal revision

- 1) The revised Civil Aeronautics Act provides that the Minister of Land, Infrastructure, Transport and Tourism shall **immediately notify the Japan Transport Safety Board (JTSB)** if the minister of Land, Infrastructure, Transport and Tourism has received a report from someone who received a type certificate of an aircraft model **when an accident or serious incident involving the particular aircraft model occurs.**
- 2) **The scope of "aircraft serious incidents"** subject to investigation by the JTSB **was expanded to include situations involving aircraft on the ground.**
- 3) **"Aircraft designer, etc."** was specified as one of the parties **subject to the JTSB's order for reports**
- 4) A new system was established to enable the JTSB to issue **necessary recommendations to the parties relevant to the cause, etc. when making or releasing an investigation progress report**, in anticipation of cases where safety must be promptly ensured in response to aircraft accidents or serious incident concerning domestically built aircraft.

(Reference) The accident and serious incident investigation flow and the legal revision summary



* Reference case (related to 2) above)

- In January 2013, a fire started in the APU battery (the battery for the auxiliary power unit) of a parked Boeing 787-8 of Japan Airlines in Boston's Logan International Airport in the US and burned the surrounding part.
- In response, the National Transportation Safety Board (NTSB), the accident investigative body of the US, conducted an investigation as a case of an aircraft serious incident.



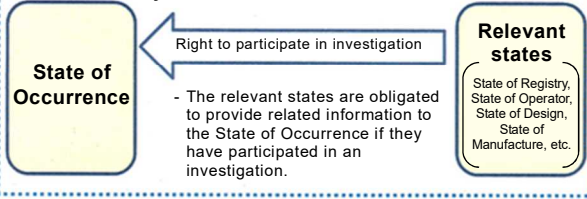
The aircraft at the time of the fire and the damaged battery

The framework of accident and serious incident investigation pursuant to the Convention on International Civil Aviation and States of Design/Manufacture's responsibilities 

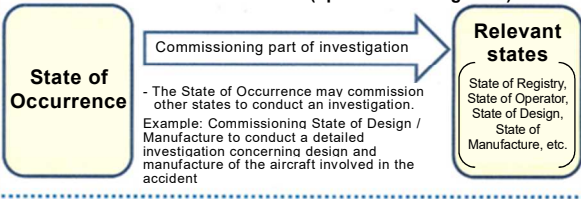
The framework of accident investigation pursuant to the Convention on International Civil Aviation

According to the Convention on International Civil Aviation, in case of an aircraft accident or serious incident, the State where the accident or incident concerned occurred (the State of Occurrence) shall start an investigation.

○ The relevant states participate in any investigation conducted by the State of Occurrence



○ Part of the investigation conducted based on a request from the State of Occurrence (specific investigation)



Cases of part of investigation conducted based on a request from the State of Occurrence (specific investigation)

