

AIRCRAFT ACCIDENT INVESTIGATION REPORT

Japan Air Lines Co., Ltd.
Boeing 747 SR-100, JA8119
Gunma Prefecture, Japan
August 12, 1985

Aircraft Accident Investigation Commission
Ministry of Transport

June 19, 1987

(Tentative Translation from
Original in Japanese)

1 . The Progress and Process of the Aircraft Accident Investigation

1. 1 Summary of the Aircraft Accident

JA8119, a Boeing 747 SR-100 of Japan Air Lines Co., Ltd, during a flight from Tokyo to Osaka scheduled as flight 123 on August 12, 1985, experienced an emergency at approximately 1825 hours when approaching east coast of Southern Izu Peninsula, and after a continued flight of about 30 minutes the aircraft crashed among mountains in Ueno Village, Tano Gun, Gunma Prefecture at approximately 1856 hours.

On board the aircraft were 509 passengers (including 12 infants) and a crew of 15; 524 persons in total, of which 520 persons (505 passengers and 15 crew-members) were killed, and 4 passengers seriously injured.

The aircraft was destroyed and fire occurred.

1. 2 Outline of the Aircraft Accident Investigation

1.2.1 Notification and Organization

1.2.1.1 Upon receipt from Ministry of Transport of notification of the occurrence of the accident on August 12, 1985, the Aircraft Accident Investigation Commission (hereinafter referred to as "AAIC") appointed an investigator-in-charge and 15 investigators (including two medical officers of Air Self-Defense Force specialized in aviation medicine who had been assigned to AAIC) as a team in charge of the investigation of this accident. On April 6, 1986, two more investigators were appointed.

1.2.1.2 By request of AAIC, 6 personnel of Ministry of Transport participated in the fact finding investigation.

1.2.1.3 The following 13 technical advisers were appointed for the investigation of specialized matters with regard to the accident (titles are as of the date of appointment):

(1) For the investigation of damage to the airframe structure and related matters
Junpei Shioiri
Professor, Dept. of Technology, Hosei University

Kazuyuki Takeuchi
Chief Research Engineer, V/STOL Aircraft Research Group,
National Aerospace Laboratory, Science and Technology Agency

Kouzaburo Yamane
Chief, Flight Load Lab., First Airframe Division
National Aerospace Laboratory, Science and Technology Agency

Hiroo Asada
Chief, Full-Scale Test Lab., First Airframe Division,
National Aerospace Laboratory, Science and Technology Agency

4. 2 Cause

It is estimated that this accident was caused by deterioration of flying quality and loss of primary flight control functions due to rupture of the aft pressure bulkhead of the aircraft, and the subsequent ruptures of a part of the fuselage tail, vertical fin and hydraulical flight control systems.

The reason why the aft pressure bulkhead was ruptured in flight is estimated to be that the strength of the said bulkhead was reduced due to fatigue cracks propagating at the spliced portion of the bulkhead's webs to the extent that it became unable to endure the cabin pressure in flight at that time.

The initiation and propagation of the fatigue cracks are attributable to the improper repairs of the said bulkhead conducted in 1978, and it is estimated that the fatigue cracks having not be found in the later maintenance inspection is contributive to their propagation leading to the rupture of the said bulkhead.