

**Aviation Safety Investigation Report
199604291**

**Boeing Co
B727**

27 December 1996

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Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199604291 **Occurrence Type:** Incident
Location: 9km W Melbourne, Aerodrome
State: VIC **Inv Category:** 4
Date: Friday 27 December 1996
Time: 1650 hours **Time Zone:** ESuT
Highest Injury Level: None

Aircraft Manufacturer: Boeing Co
Aircraft Model: 727-277
Aircraft Registration: VH-ANA **Serial Number:** 22641
Type of Operation: Air Transport Passenger Scheduled
Damage to Aircraft: Nil
Departure Point: Melbourne Vic
Departure Time:
Destination: Canberra ACT

Approved for Release: Tuesday, January 28, 1997

After takeoff the flight attendants seated at the rear of the aircraft reported a bang followed by abnormal noises from the area of the rear airstairs. Shortly afterwards the flight crew observed that the lower aft body overheat light had illuminated. The appropriate drills were carried out, and the warning light extinguished when all bleeds were closed. The aircraft returned for an immediate landing.

Maintenance investigation found that a titanium duct flange had ruptured upstream of the right wing anti ice valve. Failure of the flange is a known problem. A special inspection for cracks in the weld zone had been introduced many years ago and, in 1990, after an evaluation of service history, the inspection period was increased from 1,000 cycles to 2,000 cycles. The failed flange was nearly at the 2,000 cycle threshold and had failed approximately 60 cycles and just 12 days before the inspection was scheduled.

The operator is continuing checks to confirm the mode of failure of the flange, and is reassessing the compliance period.