

**Aviation Safety Investigation Report
199503596**

**Boeing Co
B747**

30 October 1995

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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: 199503596 **Occurrence Type:** Incident
Location: Sydney, Aerodrome
State: NSW **Inv Category:** 4
Date: Monday 30 October 1995
Time: 0720 hours **Time Zone:** EST
Highest Injury Level: None

Aircraft Manufacturer: Boeing Co
Aircraft Model: 747-438
Aircraft Registration: VH-OJL **Serial Number:** 25151
Type of Operation: Air Transport High Capacity International Passenger
Scheduled
Damage to Aircraft: Nil
Departure Point: Sydney NSW
Departure Time: 0720 EST
Destination: Christchurch NZ

Approved for Release: Monday, September 16, 1996

A Boeing 747 aircraft was departing from runway 16R at Sydney whilst a DeHavilland DASH 8 aircraft was departing from runway 16L. As the Boeing 747 reached about 800 ft, the crew received a Traffic Collision and Avoidance System (TCAS) resolution advisory (RA) alert which advised them to monitor the aircraft's vertical speed.

The crew of the Boeing 747 were able to observe the DASH 8, airborne from the parallel runway, and ascertained that there was no danger of conflict. The TCAS alert was of very short duration. The Boeing 747 crew maintained their current rate of climb, monitored the the TCAS and did not deviate laterally or vertically from their cleared route. The routes of the two aircraft were divergent and separation increased rapidly as the flight of both aircraft progressed.

A radar plot of the two aircraft confirmed the Boeing 747 crew's perception that there was no conflict with the other aircraft. The plot indicated an initial horizontal separation of 0.6 NM which reduced momentarily and then diverged in accordance with the cleared routes of both aircraft. Vertical separation of over 1,000 ft and lateral separation of 3 NM was achieved when the Boeing 747 was four miles from the aerodrome.

The radar plot showed that the DASH 8 became airborne just prior to the Boeing 747. Because the Boeing 747 was behind and had a significantly higher rate of climb in comparison to the DASH 8, it is likely that the TCAS assessed the DASH 8 as approaching the Boeing 747 and the system generated a preventative RA alert. Subsequently, as the Boeing 747 accelerated and passed abeam whilst climbing through the other aircraft's level, the TCAS reassessed the situation and cancelled the RA. There was no breakdown in separation.

