

**Aviation Safety Investigation Report
199801779**

**Boeing Co
B737
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B737**

21 May 1998

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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.

Occurrence Number: 199801779 **Occurrence Type:** Incident
Location: 19km NW Sydney, Aerodrome
State: NSW **Inv Category:** 4
Date: Thursday 21 May 1998
Time: 1225 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Boeing Co
Aircraft Model: 737-33A
Aircraft Registration: VH-CZV **Serial Number:** 23831

Type of Operation: Air Transport Domestic High Capacity Passenger
Scheduled

Damage to Aircraft: Nil
Departure Point: Sydney NSW
Departure Time: 0223 EST
Destination: Maroochydore Qld

Aircraft Manufacturer: Boeing Co
Aircraft Model: 737-377
Aircraft Registration: VH-CZK **Serial Number:** 23663

Type of Operation: Air Transport Domestic High Capacity Passenger
Scheduled

Damage to Aircraft: Nil
Departure Point: Coolangatta Qld
Departure Time: 0118 EST
Destination: Sydney NSW

Approved for Release: Wednesday, August 26, 1998

The airport and associated airspace were being operated in accordance with Mode 7 of the Sydney Long Term Operating Plan (LTOP), in that runway 25 was being used for departures while runways 34L and 34R were being used for arrivals. A Boeing 737 (B737), registration VH-CZV (CZV), had departed runway 25 at Sydney. When the aircraft was 6 NM north-west of Sydney airport, the crew was cleared to climb to flight level (FL) 280. When it was 10 NM north of Sydney, the Departures North controller instructed the crew to turn right onto a heading of 060 degrees.

Shortly after, the controller recognised that CZV was not going to reach 9,000 ft in sufficient time to maintain separation with another B737, VH-CZK (CZK), which was on a LETTI 3 Arrival, standard arrival route (STAR) for runway 34R and maintaining 8,000 ft. The required separation standard was either 1,000 ft vertically or 3 NM horizontally. The aircraft were approximately 3 NM apart when traffic information was passed to the crew of CZV. Subsequently, the crew of CZV reported sighting CZK and advised the controller that visual separation could be maintained. Analysis of the radar data indicated that a breakdown of separation had occurred when the lateral separation standard was infringed while the vertical displacement of the aircraft was 500 ft. The aircraft subsequently closed to within 1 NM, at which point 1,400 ft of vertical separation existed.

The investigation revealed that the controller cancelled restrictions for CZV that had been imposed for the departure. The speed restriction was cancelled first, followed by the altitude restriction of 5,000 ft. The altitude restriction would have assured separation with the track of the inbound conflicting aircraft (CZK). When the altitude restriction was removed, the controller relied on monitoring the flight paths of the aircraft and his ability to implement any necessary action to maintain separation.

The controller was undergoing a familiarisation period under the supervision of a suitably rated controller. The controllers were distracted, from the monitoring role, by coordination activities with flight service and the control tower.

As a result of this investigation and a number of similar occurrences, the Bureau of Air Safety Investigation issued report B98/90 which covered the systemic investigation into factors underlying air safety occurrences in Sydney Terminal Area airspace.

