

**Aviation Safety Investigation Report
199500335**

**Boeing Co
B737
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B737**

09 February 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.

Occurrence Number: 199500335 **Occurrence Type:** Incident
Location: 17km N Sydney
State: NSW **Inv Category:** 3
Date: Thursday 09 February 1995
Time: 1255 hours **Time Zone** ESuT
Highest Injury Level: None

Aircraft Manufacturer: Boeing Co
Aircraft Model: 737-377
Aircraft Registration: VH-CZB **Serial Number:** 23654
Type of Operation: Air Transport High Capacity Passenger
Damage to Aircraft: Nil
Departure Point: Sydney NSW
Departure Time: 1251 ESuT
Destination: Maroochydore QLD

Aircraft Manufacturer: Boeing Co
Aircraft Model: 737-377
Aircraft Registration: VH-CZK **Serial Number:** 23663
Type of Operation: Air Transport High Capacity Passenger
Damage to Aircraft: Nil
Departure Point: Coolangatta QLD
Departure Time:
Destination: Sydney NSW

Approved for Release: Tuesday, December 19, 1995

After takeoff from runway 34L VH-CZB was tracking outbound from Sydney on a West Maitland One, Standard Instrument Departure (SID). On this SID the aircraft was maintaining a track of 335 degrees outbound on the localiser at an altitude of 5,000 ft. The crew were in contact with Sydney Departures Control.

VH-CZK was inbound on a Letti One Standard Arrival (STAR), heading 160 degrees, on a track that was close to the reciprocal of the track of VH-CZB. The crew were in contact with Sydney Approach Control and were cleared to descend to 7,000 ft.

A third aircraft, VH-TCH, was also inbound and ahead of VH-CZK. Because VH-CZK was faster than VH-TCH and expected to overtake it, the approach controller obtained approval from the departures controller to turn VH-TCH left. The purpose of this was to allow VH-CZK to get ahead of VH-TCH and also to allow it to descend through the level of VH-TCH.

Under existing procedures the approach controller was not permitted to descend VH-CZK below 6,000 ft. However, when contacting VH-CZK, the controller inadvertently cleared VH-CZK to descend to 4,000 ft which was consistent with procedures previously in place. The crew acknowledged and commenced descent.

A short time later the crew of VH-CZK saw an approaching aircraft which was directly ahead and slightly below them. They queried the controller on whether they were cleared to 4,000 ft and were instructed to maintain 6,000 ft. They were then advised that the other aircraft, VH-CZB, was maintaining 5000 feet. The crew stopped the descent and climbed to 6,000 ft.

The radar recording showed that separation between these two aircraft had reduced to 1.1 NM horizontal and 600 ft vertical.

At Sydney there have been a number of ongoing changes affecting air traffic control. These include the introduction of a new Interim Radar Display System (IRDS), and a new parallel runway system requiring new procedures. STARS were recently introduced and sectors formally based at Sydney have been progressively transferred to Melbourne or Brisbane.

Because of noise complaints resulting from the new parallel runway system, aircraft at lower altitudes in the vicinity of the airport are now restricted to narrow corridors and are required to fly long approaches. As a result they remain under approach or departure control for a longer period than was the case, thus increasing controller workload.

To assist in minimising co-ordination between control positions a system of vertical airspace separation was introduced to assigned sections of the terminal area. In the section relevant to this occurrence the departures controller was able to assign altitudes up to 5,000 ft, without co-ordination and the approach controller could assign altitudes down to 6,000 ft, also without co-ordination.

The adjacent section of airspace outside the corridor was managed by departures control, which was the reason the approach controller co-ordinated with the departures controller to divert VH-TCH left of track. However, had the approach controller waited a short time, both VH-CZB and VH-CZK would have entered an area of airspace controlled by approach control and in which the approach controller could have arranged the separation and passing, without co-ordination. Due to the enforced long approach flight path there was ample time remaining for the approach controller to arrange separation and descend VH-CZK.

The workload at the time was moderate.

Significant Factor

The following factor was considered relevant to the development of the incident:

The approach controller inadvertently reverted to procedures which were no longer in place.