

**Aviation Safety Investigation Report
199601228**

**Boeing Co
B737
Boeing Co
B747**

16 April 1996

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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: 199601228	Occurrence Type: Incident
Location: 37km N Wagga Wagga, Aerodrome	
State: NSW	Inv Category: 4
Date: Tuesday 16 April 1996	
Time: 2102 hours	Time Zone: EST
Highest Injury Level: None	
Aircraft Manufacturer: Boeing Co	
Aircraft Model: 747-438	
Aircraft Registration: VH-OJG	Serial Number: 24779
Type of Operation: Air Transport Domestic High Capacity Passenger Scheduled	
Damage to Aircraft: Nil	
Departure Point: Perth WA	
Destination: Sydney NSW	
Aircraft Manufacturer: Boeing Co	
Aircraft Model: 737-377	
Aircraft Registration: VH-CZD	Serial Number: 23656
Type of Operation: Air Transport Domestic High Capacity Passenger Scheduled	
Damage to Aircraft: Nil	
Departure Point: Melbourne Vic	
Destination: Brisbane Qld	

Approved for Release: Friday, July 12, 1996

The Boeing 737 was northbound from Melbourne to Brisbane, via route H29. The air traffic controller cleared the Boeing 737 direct to Mudgee so that it would pass about 15 nautical miles west of Wagga. The Boeing 747, was eastbound from Perth to Sydney on route H31 tracking from Natya to Cullerin. This track crosses H29 about 20 miles north of Wagga. Both aircraft were maintaining flight level 370 as cleared by air traffic control.

Less than three minutes before the Boeing 747 reached the crossing point of the two tracks, the air traffic controller instructed the aircraft to descend to flight level 350. At the time the Boeing 747 commenced the descent, recorded radar data showed that the aircraft had a groundspeed of 530 knots and was 24 miles from the point of track intersection. At the same time the Boeing 737 had a groundspeed of 480 knots and was 20 miles from the point of track intersection. Subsequently both aircraft passed with 1,600 ft vertical separation and within 3 miles horizontally.

The time allowed by the controller for the descent was inadequate to ensure the required 2,000 feet vertical separation standard for aircraft within five miles of each other was maintained. The controller's resolution of the conflict was deemed to be inappropriate for the situation. Given the short time to the crossing point, a higher degree of expedition would have been required if descending the Boeing 747 was to be the only measure to achieve separation. For separation assurance, once the conflict was recognised, it was not enough for the controller to merely instruct the Boeing 747 to descend. A requirement or a radar vector was necessary given the proximity of both aircraft.

Weather was not a factor in the incident. The air traffic controller's workload was not busy. All facilities and equipment were serviceable. The controller was licensed and current. There was no evidence that the controller was suffering fatigue.

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

1. The air traffic controller did not adequately plan ahead to ensure required separation standards were achieved.

