

**Aviation Safety Investigation Report  
199502491**

**Aero Commander Div  
Shrike Commander  
Boeing Co  
B747**

**08 August 1995**

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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](http://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:** 199502491                      **Occurrence Type:** Incident  
**Location:** Sunbury  
**State:** VIC    **Inv Category:** 4  
**Date:** Tuesday 08 August 1995  
**Time:** 0723 hours                                      **Time Zone** EST  
**Highest Injury Level:** None

**Aircraft Manufacturer:** Boeing Co  
**Aircraft Model:** 747-438  
**Aircraft Registration:** VH-OJI    **Serial Number:** 24887

**Type of Operation:** Air Transport High Capacity International Passenger  
Scheduled  
**Damage to Aircraft:** Nil  
**Departure Point:** Melbourne VIC  
**Departure Time:** 0721 EST  
**Destination:** Sydney NSW

**Aircraft Manufacturer:** Aero Commander Div  
**Aircraft Model:** 500-S  
**Aircraft Registration:** VH-UJL    **Serial Number:** 3088

**Type of Operation:** Air Transport Domestic Low Capacity Non-scheduled  
Passenger  
**Damage to Aircraft:** Nil  
**Departure Point:** Essendon VIC  
**Departure Time:** 2116 EST  
**Destination:** Bendigo VIC

**Approved for Release:** Friday, September 8, 1995

QFA10, VH-OJI, departed Melbourne on radar vectors on climb in stages to 5,000 ft. At the same time VH-UJL was on track Essendon - Owens maintaining 6,000 ft. The radar controller observed QFA10 climb through 5,400 ft and turned the aircraft onto a new heading to avoid conflict with VH-UJL. Separation reduced to 500 ft vertically and 1.5 miles laterally.

Between 3,000 ft and 4,500 ft the first officer and second officer changed seats to enable the second officer to climb the aircraft. The captain had been flying manually until handing over to the second officer at about the time the aircraft was cleared from 4,500 to 5,000 ft. The second officer continued to manually fly the aircraft. 5,000 ft had been dialled up on the altitude selector but altitude hold had not been selected because the pilots were anticipating a further climb clearance. The flaps were fully retracted normally approaching 5,000 ft. However, once the flaps retracted the flight management computer (FMC) automatically increased thrust to accelerate the aircraft to climb speed of 320 kts. With the sudden thrust increase, the rate of climb increased and the aircraft overshot 5,000 ft. By about 5,460 ft thrust was manually retarded and the aircraft was descended back to 5,000 ft.

At the time of the incident the traffic alert and collision avoidance system (TCAS) on QFA10 showed conflicting traffic at approximately the 10 o'clock position, two miles ahead and 500 ft higher. No traffic advisory (TA) or resolution advisory (RA) indication occurred because the breakdown in separation was not severe enough.

#### Significant Factors

The following factors were considered relevant to the development of the incident:

1. Altitude hold had not been selected so the FMC did not level off the aircraft at 5,000.
2. Aircrew had changed seats not long before the aircraft reached 5,000 ft.
3. The second officer did not anticipate the FMC induced increase in thrust/ rate of climb as the flaps fully retracted approaching 5000 ft.
4. The captain was not properly monitoring the situation.

#### SAFETY ACTION

QANTAS advised that the company would review when pilots would be permitted to change seats.

