

**Aviation Safety Investigation Report**  
**199102795**

**Boeing 767-338ER**  
**Airbus A320-211**

**27 July 1991**

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the CEO of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the CEO of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

**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).**

**Occurrence Number:** 199102795  
**Location:** 140 km N Roma QLD  
**Date:** 27 July 1991  
**Highest Injury Level:** Nil  
**Injuries:**

**Occurrence Type:** Incident  
**Time:** 1430

	Fatal	Serious	Minor	None
Crew	0	0	0	0
Ground	0	0	0	-
Passenger	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>Aircraft Details:</b>	Boeing 767-338ER	Airbus A320-211
<b>Registration:</b>	VH-OGE	VH-HYJ
<b>Serial Number:</b>	24531	142
<b>Operation Type:</b>	Regular Public Transport	Regular Public Transport
<b>Damage Level:</b>	Nil	Nil
<b>Departure Point:</b>	Brisbane QLD	Hamilton Island QLD
<b>Departure Time:</b>	1348	1350
<b>Destination:</b>	Singapore	Sydney NSW

**Approved for Release:** 3rd January 1992

#### Circumstances:

After departing Hamilton Island, A320 aircraft VH-HYJ tracked via Mackay to Emerald, and then airway route W82 towards Roma at flight level(FL) 370. Boeing 767 VH-OGE departed Brisbane and tracked via Taroom and airway route A464 towards Longreach, also at FL370. The aircraft were being controlled by the Brisbane Sector 5 Procedural Controller. The controller was undergoing a routine periodic performance check by a check controller. Sector 5 airspace covers the greater portion of southern Queensland and extends to 150 nm west of Mount Isa. During the 30 minutes leading up to the occurrence, the Sector 5 controller had been engaged in coordination with Darwin, Townsville, Brisbane Sectors 2 and 3, Adelaide, Alice Springs, and Mount Isa. During that time, he had 12 Regular Public Transport (RPT) jet aircraft which required separation, coordination, and frequency change instructions. Sector 5 airspace has 6 discrete VHF frequencies, which allows continuous VHF communication to be maintained within the Sector. Frequency change points do not coincide with reporting points thus increasing controller workload, particularly when instructions have to be repeated, or communication with aircraft is temporarily lost. For traffic management purposes, each aircraft is assigned a Flight Progress Strip for each position reporting point. The controller had approximately 60 strips on the flight progress console which required surveillance during the period. When it became apparent that there was a potential confliction between VH-OGE and VH-HYJ, the controller offered VH-HYJ FL390 for separation but this was not acceptable to the flight crew. The controller then offered VH-OGE FL390 for separation but this was also unacceptable. The alternative was then to descend VH-HYJ to FL350 but this could not be accomplished until this aircraft had reported sighting and passing a Boeing 737, VH-TAW, which was on the same track, but heading in the opposite direction at FL350. A passing time was calculated, but the aircraft did not sight and pass each other until two minutes later than expected. When the sighting and passing was reported, the controller immediately instructed VH-HYJ to descend to FL350, but it then became apparent that the requisite vertical separation standard (two thousand feet) would not be achieved

before VH-HYJ had entered the area of conflict with VH-OGE. The area of conflict is a defined area based on navigation tolerances, within which there can only be one aircraft, unless the prescribed non-lateral separation standard exists. It was determined by reference to a diagram which showed distances from Taroom and Longreach on the airway route A464, and Emerald and Roma on the airway route W82. The aircraft were estimated to be no closer to each other than 30 nm, whilst at the same flight level. The investigation revealed that the incident occurred during a period of extremely high workload. There were no personal or physiological circumstances or conditions that may have contributed to the development of the incident. The traffic was displayed in an efficient manner, however, the ability of the controller to appreciate the potential conflict at an early stage was reduced due to the high workload. The problem was recognised by the check controller and he brought it to the attention of the controller, who did not immediately respond, as his attention was on other tasks. When the potential conflict was recognised, the controller's options became extremely limited, and this resulted in an infringement of the separation standard. To reduce the possibility of a recurrence of this nature, the Civil Aviation Authority has placed an additional controller at the Sector 5 position, to coordinate traffic during identified periods of high workload.