

**Aviation Safety Investigation Report  
199601274**

**Saab Aircraft AB  
340  
British Aerospace Plc  
BAe 146**

**18 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](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:** 199601274                      **Occurrence Type:** Incident  
**Location:** Yass, Non Directional Beacon  
**State:** NSW    **Inv Category:** 4  
**Date:** Thursday 18 April 1996  
**Time:** 1024 hours                                      **Time Zone** EST  
**Highest Injury Level:** None

**Aircraft Manufacturer:** British Aerospace Plc  
**Aircraft Model:** BAe 146-200  
**Aircraft Registration:** VH-NJG                                      **Serial Number:** E2170  
**Type of Operation:** Air Transport Domestic High Capacity Passenger Scheduled  
**Damage to Aircraft:** Nil  
**Departure Point:** Brisbane Qld  
**Departure Time:** 0850 EST  
**Destination:** Canberra ACT

**Aircraft Manufacturer:** Saab Aircraft AB  
**Aircraft Model:** SF-340B  
**Aircraft Registration:** VH-EKH                                      **Serial Number:** 369  
**Type of Operation:** Air Transport Domestic Low Capacity Passenger Scheduled  
**Damage to Aircraft:** Nil  
**Departure Point:** Albury NSW  
**Departure Time:** 0957 EST  
**Destination:** Sydney NSW

**Approved for Release:** Thursday, June 13, 1996

The two aircraft were on crossing tracks. VH-NJG was cleared to descend initially to flight level (FL)180 to maintain separation with the VH-EKH at FL170. The controller noted successive radar returns indicating NJG was at FL177 and assumed the pilot had continued descent through the cleared level. He decided that the most appropriate course of action was for the aircraft to continue descent through the level of EKH while maintaining separation laterally.

He therefore cleared NJG to descend to FL115 and instructed the aircraft to alter heading 15 deg to the left. However, the groundspeed and descent rate of NJG did not proceed as anticipated and it became evident to the controller that vertical separation would not be established before lateral separation was lost. Accordingly, the controller instructed NJG to expedite descent through FL160 but did not pass traffic information to either aircraft when separation was lost. Radar separation reduced to three miles, instead of the required five miles, before vertical separation was established.

The investigation revealed that when the controller noted NJG's radar return indicating FL177, he assumed the pilot had continued descent through the cleared level. He then decided the conflict would be most quickly resolved by the aircraft continuing descent to below FL160, rather than reversing its flight profile to climb back to FL180. This was why he cleared the aircraft to continue descent to FL115. A replay of the radar tape indicated that the aircraft actually levelled out at FL180 but in doing so had gone down to FL177 in the level out manoeuvre (there were three returns indicating FL177 before FL180 was indicated). Hence the descent instruction resulted in the exact effect the controller was trying to avoid which was a delay due to reversal of flight profile while vertical separation did not exist.

