

**Aviation Safety Investigation Report
199702770**

**Saab Aircraft AB
SF-340A
Saab Aircraft AB
SF-340A
de Havilland Canada
Dash 8**

26 August 1997

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Occurrence Number: 199702770 **Occurrence Type:** Incident
Location: 9km W Cowes
State: VIC **Inv Category:** 4
Date: Tuesday 26 August 1997
Time: 0717 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: de Havilland Canada
Aircraft Model: DHC-8-102
Aircraft Registration: VH-WZI **Serial Number:** 014
Type of Operation: Air Transport Domestic Low Capacity Passenger Scheduled
Damage to Aircraft: Nil
Departure Point: Melbourne Vic.
Departure Time:
Destination: Wynyard Tas.

Aircraft Manufacturer: Saab Aircraft AB
Aircraft Model: SF-340A
Aircraft Registration: VH-KEQ **Serial Number:**
Type of Operation: Air Transport Domestic Low Capacity Passenger Scheduled
Damage to Aircraft: Nil
Departure Point: Wynyard Tas.
Departure Time:
Destination: Melbourne Vic.

Aircraft Manufacturer: Saab Aircraft AB
Aircraft Model: SF-340A
Aircraft Registration: **Serial Number:**
Type of Operation: Air Transport Domestic Low Capacity Passenger Scheduled
Damage to Aircraft: Nil
Departure Point: Devonport Tas.
Departure Time:
Destination: Melbourne Vic.

Approved for Release: Monday, July 20, 1998

FACTUAL INFORMATION

A Dash 8 had departed Melbourne on a flight to Wynyard, Tasmania and was climbing to flight level (FL) 170 via Cowes, a reporting point and navigational aid south east of Melbourne en-route to Wynyard.

A SAAB 340 had departed Wynyard for Melbourne and was also tracking via Cowes, maintaining FL160. The crew had been instructed to descend to FL130 "when ready".

The Melbourne Inner South controller had recognised that there was a potential conflict and coordinated, with the departures controller, for the Dash 8 to be radar vectored to the left of track. This action would provide radar separation between the aircraft to allow both crews to change level without infringing the separation standards.

The crew of the Dash 8 requested, and were given, permission to climb to and maintain FL150.

When the controller issued the left turn instruction, the crew of the Dash 8 asked if a right turn was available. The controller checked the route on a longer range radar scale and decided that the direct track to Wynyard would be adequate for radar separation purposes and would be a shorter track for the aircraft. A new instruction was then issued for the crew to track from their present position direct to Wynyard.

The controller had, in fact, looked at the wrong track and destination when changing radar range scales and had mistaken a geographical point on the Tasmanian coast as Wynyard, when it was actually Smithton. Wynyard was not displayed on the map.

When the Dash 8 commenced the turn, the controller realised the mistake but thought that there would be sufficient distance between the crossing flight paths to provide the required radar separation.

Meanwhile the crew of the SAAB 340 had commenced descent and, as vertical separation was reducing, the controller realised that the aircraft would pass with less than the required standard. The crew of the SAAB 340 were instructed to turn right 20 degrees in an attempt to maintain the standard but the turn proved to be insufficient and a breakdown of separation occurred.

Radar analysis indicated that the aircraft passed with 4.7 NM horizontal separation and a vertical separation of 900 ft. The required standard was either 5 NM horizontally or 1,000 ft vertically.

A second SAAB 340 had departed Devonport, Tas. on a flight to Melbourne and was on a similar track to the first SAAB 340. This SAAB was approximately 15NM behind the leading SAAB and the crew had just commenced descent from FL160 in accordance with the controllers instructions.

Approximately 80 seconds after the initial incident, the radar separation between the Dash 8 and this second SAAB 340 reduced to 3.5NM with the radar indicating that the aircraft had passed each other with 900 ft vertical difference. The controller had issued descent instructions to the crew of the SAAB 340 which negated the existing vertical separation standard of 1,000 ft. However, the crews had reported sighting and passing each other's aircraft.

The controller had established this visual contact by obtaining a report from the crew of the Dash 8 that "we have the SAAB passing on our left hand side".

ANALYSIS

The radar map showed a track and destination for Smithton but no information at all for Wynyard. Whereas Wynyard was a regular destination, traffic to Smithton was infrequent in controlled airspace.

Although the controller promptly detected the initial error, track shortening was allowed to proceed. Although actively monitoring the developing situation, the decision to allow unrestricted climb and descent did not provide separation assurance.

When the track of the Dash 8 also conflicted with the second SAAB 340, there was a vertical separation standard in existence. However, the controller authorised descent for the SAAB 340 with only minimal radar separation. The controller had based separation on pilot reports of mutual sighting. Whereas the SAAB crew could have been safely expected not to miss-identify the Dash 8 aircraft, the Dash 8 crew may have been referring to the first of the two SAAB aircraft.

SIGNIFICANT FACTORS

1. The Inner South controller mistakenly identified the location of Smithton on the radar display map as that of Wynyard.
2. The Inner South controller did not use adequate separation assurance techniques.
3. The Inner South controller misjudged the radar separation between the Dash 8 and SAAB 340 aircraft.

SAFETY ACTION

As a result of the investigation, Airservices Australia Southern District management put in place amendments to the radar display map that indicate the location of Wynyard for controller reference.

