

**Aviation Safety Investigation Report
200002305**

**Boeing Co
B767**

31 May 2000

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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: 200002305 **Occurrence Type:** Incident
Location: Perth, Aerodrome
State: WA **Inv Category:** 4
Date: Wednesday 31 May 2000
Time: 2148 hours **Time Zone** WST
Highest Injury Level: None

Aircraft Boeing Co
Manufacturer:
Aircraft Model: 767-238
Aircraft Registration: VH-EAM **Serial** 23309
Number:
Type of Operation: Air Transport Domestic High Capacity Passenger
Scheduled
Damage to Aircraft: Nil
Departure Point: Sydney NSW
Departure Time: 1913 WST
Destination: Perth WA

Approved for Release: Friday, November 3, 2000

Prior to the top of the descent, the crew of the Boeing 767 monitored the Perth Airport automatic terminal information service, which indicated low mist patches in the airport area. The approach controller indicated to the crew that fog was rapidly obscuring both runways. However, a short time later, the tower controller indicated that the visibility on runway 21 was 800 metres. At the minimum descent altitude, the crew reported to the tower controller that they could see the runway. The crew later reported that during the landing roll, visibility reduced to less than 600 metres. The aircraft landed at 2156 WST on runway 21.

The Bureau of Meteorology issued a terminal area forecast at 1838 which forecast a 30% probability of fog from 0200-0800 the next morning. An amended terminal area forecast was issued at 2045 which forecast a 40% probability of fog from 0000-0900 the next morning. The current airport trend type forecast indicated periods of reduced visibility to 4,000 metres for 30 minutes or less. The onset of fog occurred 2.5 hours prior to the forecast time.

A report from the Bureau of Meteorology Perth office indicated that the assessment was that fog would be a possibility depending on how quickly the showers and cloud cleared, the wind speed decreased and stabilisation of the dewpoint occurred. At 2040 a pilot landing at Jandakot Airport, about 16 kilometres from the Perth Airport, advised that fog patches were forming at that airport. At 2050 the duty Senior Supervising Meteorologist conducted a 'rooftop' observation from the Regional Forecasting Centre and noted that the Perth control tower, about 12 kilometres, and lights on the Darling escarpment, about 19 kilometres, were visible. The observed conditions confirmed that fog from 0000 seemed a reasonable possibility.

The Bureau of Meteorology indicated that experience had shown that it was rare for fog to occur as early as it had. The early occurrence of fog at Perth always follows precipitation in the preceding daylight hours. The passage of a front in the afternoon, accompanied by precipitation is a good precursor of early fog at Perth. The frontal passage was in the early evening at 1930. While fog can form almost immediately after a frontal passage, as it did on this occasion, experience has shown that it is rare for this to happen. The number of fogs forming at 2200 or earlier, over a 26 year period at Perth Airport is approximately 20 out of a total of 340 or 5% of occasions. The forecasting team on duty that night were surprised by the onset of fog, earlier than expected, once the showers had cleared.

The Bureau of Meteorology advised that the soon to be implemented Bureau of Meteorology Research Centre Fog Project at Perth Airport will assist with the knowledge and the quality of aviation fog forecasting.