Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Investigation – 200700510

Final

Depressurisation
140 NM south of Alice Springs, NT
6 February 2007
Beech Aircraft Corporation 300, VH-MLG

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Postal address: PO Box 967, Civic Square ACT 2608
Office location: 15 Mort Street, Canberra City, Australian Capital Territory
Telephone: 1800 621 372; from overseas + 61 2 6274 6440
Accident and incident notification: 1800 011 034 (24 hours)
Facsimile: 02 6247 3117; from overseas + 61 2 6247 3117
E-mail: atsbinfo@atsb.gov.au
Internet: www.atsb.gov.au

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Figure 1 supplied by the aircraft operator.

Abstract

On 6 February 2007, at approximately 1130 Central Summer Time, while operating a passenger charter flight from Melbourne, Vic. to Alice Springs, NT, the pilot of a Beech Aircraft Corporation 300 aircraft, registered VH-MLG, reported feeling his ears 'pop' while at flight level 280 and the aircraft rapidly depressurised. There were eight persons on board the aircraft.

The pilot reported looking at the aircraft pressurisation panel and noticing that the needles were rapidly moving. The passenger seated in the right seat (also a pilot) called to the pilot to 'put on oxygen'. While donning his oxygen mask, the passenger reported that the oxygen hose blew out of the mask when pressurised. He managed to reattach the hose and remain on oxygen.

After checking that the passengers had donned their oxygen masks, the pilot advised air traffic control of the depressurisation and commenced an emergency descent. The aircraft subsequently landed at Alice Springs with no injuries reported.

The pilot reported that it is possible that, while adjusting his seat position prior to top of descent, he inadvertently activated the switch to the DUMP position.

THE AUSTRALIAN TRANSPORT SAFETY BUREAU

The Australian Transport Safety Bureau (ATSB) is an operationally independent multi-modal bureau within the Australian Government Department of Infrastructure, Transport, Regional Development and Local Government. ATSB investigations are independent of regulatory, operator or other external bodies.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

Purpose of safety investigations

The object of a safety investigation is to enhance safety. To reduce safety-related risk, ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not the object of an investigation to determine blame or liability. However, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

Developing safety action

Central to the ATSB's investigation of transport safety matters is the early identification of safety issues in the transport environment. The ATSB prefers to encourage the relevant organisation(s) to proactively initiate safety action rather than release formal recommendations. However, depending on the level of risk associated with a safety issue and the extent of corrective action undertaken by the relevant organisation, a recommendation may be issued either during or at the end of an investigation.

The ATSB has decided that when safety recommendations are issued, they will focus on clearly describing the safety issue of concern, rather than providing instructions or opinions on the method of corrective action. As with equivalent overseas organisations, the ATSB has no power to implement its recommendations. It is a matter for the body to which an ATSB recommendation is directed (for example the relevant regulator in consultation with industry) to assess the costs and benefits of any particular means of addressing a safety issue.

About ATSB investigation reports: How investigation reports are organised and definitions of terms used in ATSB reports, such as safety factor, contributing safety factor and safety issue, are provided on the ATSB web site www.atsb.gov.au.

FACTUAL INFORMATION

On 6 February 2007, at approximately 1130 Central Summer Time[1], while operating a passenger charter flight from Melbourne, Vic. to Alice Springs, NT, the pilot of a Beech Aircraft Corporation 300 aircraft, registered VH-MLG, reported feeling his ears 'pop' while at flight level 280 and the aircraft rapidly depressurised. There were eight persons on board the aircraft.

The pilot reported looking at the aircraft pressurisation panel and noticing that the needles were moving rapidly. The passenger seated in the right front seat (also a pilot) called to the pilot to 'put on oxygen'. While donning his oxygen mask, the passenger reported that the oxygen hose blew out of the mask when pressurised. He was able to reattach the hose and remain on oxygen.

After checking that the passengers had donned their oxygen masks, the pilot advised air traffic control of the depressurisation and commenced an emergency descent. The aircraft subsequently landed at Alice Springs with no injuries reported.

During the descent, the pilot scanned the aircraft system panels to see if he could identify any problems and noticed that the pressurisation dump and test switch was in the DUMP position (Figure 1).

Figure 1: Pressurisation, dump and test switch location

1 The 24 hour clock is used in this report to describe the local time of day, Central Standard Time, as particular events occurred. Central Standard Time was Coordinated Universal Time (UTC) + 9.5 hours.

The pressurisation dump and test switch is located on the cockpit centre console, immediately to the right of the pilot's seat. The switch is mechanically gated, requiring the pilot to lift the switch prior to selecting the desired position.

The pilot reported that it is possible that, while adjusting his seat position prior to top of descent, he inadvertently activated the switch to the DUMP position.

The Australian Transport Safety Bureau contacted the aircraft manufacturer in regard to the location and operation of the switch. They reported that the switch location varies with each aircraft installation, dependant on the avionic suite installation specified by the aircraft operator. The aircraft manufacturer had not had any previous reports of an inadvertent operation of the pressurisation switch.

The aircraft operator advised that it would submit a service difficulty report to the Civil Aviation Safety Authority in regard to the oxygen mask failure.