



Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Investigation - 200701109

Final

Depressurisation

Tamworth, NSW

26 February 2007

Fairchild Industries SA227-DC, VH-HPB



Australian Government
Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Investigation

200701109

Final

Depressurisation
Tamworth, NSW
26 February 2007
Fairchild Industries SA227-DC, VH-HPB

Published by: Australian Transport Safety Bureau
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

© Commonwealth of Australia 2008.

This work is copyright. In the interests of enhancing the value of the information contained in this publication you may copy, download, display, print, reproduce and distribute this material in unaltered form (retaining this notice). However, copyright in the material obtained from other agencies, private individuals or organisations, belongs to those agencies, individuals or organisations. Where you want to use their material you will need to contact them directly.

Subject to the provisions of the *Copyright Act 1968*, you must not make any other use of the material in this publication unless you have the permission of the Australian Transport Safety Bureau.

Please direct requests for further information or authorisation to:

Commonwealth Copyright Administration, Copyright Law Branch
Attorney-General's Department, Robert Garran Offices, National Circuit, Barton ACT 2600
www.ag.gov.au/cca

ISBN and formal report title: see 'Document retrieval information' on page iii.

DOCUMENT RETRIEVAL INFORMATION

Report No.	Publication date	No. of pages	ISBN
200701109	3 March 2008	5	978-1-9211-65-94-8

Publication title

Depressurisation – Tamworth, NSW, 26 Feb 2007, Fairchild Industries SA227-DC, VH-HPB

Prepared by

Australian Transport Safety Bureau
PO Box 967, Civic Square ACT 2608 Australia
www.atsb.gov.au

Reference No.

Mar2008/Infrastructure 08057

Abstract

On 26 February 2007, while in cruise at flight level (FL) 190 on a scheduled passenger flight from Inverell, to Sydney, NSW, with two pilots and six passengers, the crew of a Fairchild Industries SA227-DC (Metro) aircraft, registered VH-HPB, reported that the cabin altitude increased rapidly. The crew immediately donned their emergency oxygen masks and descended the aircraft to 10,000 ft. The flight continued to Sydney and landed safely. There were no injuries.

This was the second reported in-flight depressurisation on VH-HPB. The aircraft operator reported a prior event on 12 February 2007.

Following the 26 February 2007 event, the aircraft operator conducted extensive troubleshooting of the aircraft's pressurisation system and door seals in an attempt to isolate the reason for the depressurisation. Following maintenance actions, the aircraft was returned to service.

The operator reported that the aircraft again depressurised in-flight on two more occasions on 20 March and 4 April 2007. Despite further troubleshooting and maintenance actions, the operator was unable to ascertain the reason for the depressurisations. As a result, following the 4 April event, the operator issued a Pilot Operations Notice to all flight crew restricting the operating altitude of the aircraft to a maximum of 12,000 ft. Subsequent to this action, the aircraft depressurised again in-flight on 16 August 2007.

On 16 October 2007, as a result of fleet changes, the aircraft operator ceased operating VH-HPB. The aircraft subsequently completed a Phase check, including a thorough inspection of all pressurisation components and systems. The aircraft was subject to several pressurisation ground runs, however no anomalies with the pressurisation system were found.

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

At approximately 1905 Eastern Daylight-saving Time¹ on 26 February 2007, while in cruise at flight level (FL) 190 on a scheduled passenger flight from Inverell, to Sydney, NSW, with two pilots and six passengers, the crew of a Fairchild Industries SA227-DC (Metro) aircraft, registered VH-HPB, reported that the cabin altitude increased rapidly. The crew immediately donned their emergency oxygen masks and descended the aircraft to 10,000 ft. The flight continued to Sydney and landed safely. There were no injuries.

This was the second reported in-flight depressurisation on VH-HPB. The aircraft operator reported a prior event on 12 February 2007.

Following the 26 February 2007 event, the aircraft operator conducted extensive troubleshooting of the aircraft's pressurisation system and door seals in an attempt to isolate the reason for the depressurisation. Following maintenance actions, the aircraft was returned to service.

The operator reported that the aircraft again depressurised in-flight on two more occasions on 20 March and 4 April 2007. Despite further troubleshooting and maintenance actions, the operator was unable to ascertain the reason for the depressurisations. As a result, following the 4 April event, the operator issued a Pilot Operations Notice to all flight crew restricting the operating altitude of the aircraft to a maximum of 12,000 ft. Subsequent to this action, the aircraft depressurised again in-flight on 16 August 2007.

On 16 October 2007, as a result of fleet changes, the aircraft operator ceased operating VH-HPB. The aircraft subsequently completed a Phase check, including a thorough inspection of all pressurisation components and systems. The aircraft was subject to several pressurisation ground runs, however no anomalies with the pressurisation system were found.

¹ The 24-hour clock is used in this report to describe the local time of day, Eastern Daylight-saving Time (EDST), as particular events occurred. EDST is Coordinated Universal Time (UTC) + 11 hours.