



Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Investigation – 200700765

Final

**Crew incapacitation – Busselton Aerodrome, WA
13 February 2007
VH-SQF
Beech Aircraft Corporation 58 Baron**



Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Investigation

200700765

Final

Crew incapacitation
Busselton Aerodrome, WA
13 February 2007
VH-SQF
Beech Aircraft Corporation 58 Baron

Released in accordance with section 25 of the *Transport Safety Investigation Act 2003*

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
200700765	15 April 2008	5	978-1-921490-06-4

Publication title

Crew incapacitation – Busselton Aerodrome, WA, VH-SQF, Beech Aircraft Corporation 58 Baron.

Prepared by

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

Reference No.

Apr2008/Infrastructure 08090

Abstract

On 13 February 2007 at 1830 Western Daylight-saving Time, a Beech Aircraft Corporation 58 Baron was being used for instrument flight training. The flight was being conducted under the visual flight rules (VFR), with the pilot flying, simulating flight under the instrument flight rules (IFR). A second pilot was on board to act as a safety pilot and to lookout for other aircraft. During the conduct of a Busselton, WA non-direction beacon (NDB) approach, the pilot flying became incapacitated and the safety pilot assumed control of the Baron. The safety pilot landed the aircraft on runway 21 at Busselton and the incapacitated pilot received treatment from attending ambulance officers. The pilot was a 22 year old, Grade 2 flying instructor, with 1,422 hours total flying experience. Following a check by a Designated Aviation Medical Examiner and 4 days rest, the pilot was approved to return to work.

The pilot stated that about 12 months previously, he had experienced a similar event and after a number of medical tests that did not find any physical problems, it was established that he had been dehydrated.

Initial medical testing following the event found no health problems and it is possible that the pilot's sustenance and fluid intake was inadequate. The pilot changed his eating and fluid intake habits, including using a water bottle while flying.

The Civil Aviation Safety Authority (CASA) Aviation Medicine section subsequently suspended the pilot's Class 1 medical and requested the pilot undergo further testing. That testing found that the pilot had epilepsy and CASA revoked the pilot's medical.

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 organisations.

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 13 February 2007 at 1830 Western Daylight-saving Time¹, a Beech Aircraft Corporation 58 Baron was being used for instrument flight training. The flight was being conducted under the visual flight rules (VFR) with the pilot flying, simulating flight under the instrument flight rules (IFR). A second pilot was on board to act as a safety pilot and to lookout for other aircraft. During the conduct of a Busselton, WA non-direction beacon (NDB) approach, the pilot flying became incapacitated and the safety pilot assumed control of the Baron. The safety pilot landed the aircraft on runway 21 at Busselton and the incapacitated pilot received treatment from attending ambulance officers. The pilot was a 22 year old, Grade 2 flying instructor, with 1,422 hours total flying experience. Following a check by a Designated Aviation Medical Examiner and 4 days rest, the pilot was approved to return to work.

The pilot stated that he was a non-smoker, and was fit and healthy at the time of the event. He stated that he had travelled on commercial aircraft from Perth to Brisbane on the previous Friday and from Brisbane to Perth on the Monday, the day before the event. During those commercial flights, he did not eat or drink, spending most of the time sleeping.

On the day of the event, the pilot woke at about 0630 and had breakfast consisting of toast and a glass of fruit juice before work. During the day, he completed two 1-hour simulator sessions with students, a 3-hour navigation exercise with a student, spent an hour finalising reports and had a 1-hour session of circuit training, before the flight to Busselton. During that period he ate a couple of scones and drank no more than 500 ml of water. The temperature on the day was reported to be 30° C, with little cloud.

The pilot stated that about 12 months previously, he had experienced a similar event and, after a number of medical tests that did not find any physical problems, it was established that he had been dehydrated.

Initial medical testing following this event found no health problems and it is possible that the pilot's sustenance and fluid intake was inadequate. The situation was probably exacerbated by his habit of not replenishing fluids while travelling on commercial flights and the hot conditions on the day. The pilot changed his eating and fluid intake habits, including using a water bottle while flying.

The Civil Aviation Safety Authority (CASA) Aviation Medicine section subsequently suspended the pilot's Class 1 medical and requested the pilot undergo further testing. That testing found that the pilot had epilepsy and CASA revoked the pilot's medical.

¹ The 24-hour clock is used in this report to describe the local time of day, Western Daylight-saving Time, as particular events occurred. Western Daylight-saving Time was Coordinated Universal Time (UTC) + 9 hours.