



Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Report – 200700035

Final

Turbulence event – Adelaide Airport SA

8 Jan 2007

Boeing Co 737-838, VH-VXG



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Published by: Australian Transport Safety Bureau
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ISBN and formal report title: see 'Document retrieval information' on page iii.

DOCUMENT RETRIEVAL INFORMATION

Report No.	Publication date	No. of pages	ISBN
200700035	27 June 2007	5	978-1-921164-96-5

Publication title

Turbulence event, Adelaide Airport SA, 8 Jan 2007, Boeing Co 737-838, VH-VXG

Prepared by

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PO Box 967, Civic Square ACT 2608 Australia
www.atsb.gov.au

Reference No.

Jun2007/DOTARS 50290

Abstract

At approximately 0955 Central Daylight-saving Time on 8 Jan 2007, the flight crew commenced the take-off roll on runway 23 in a Boeing Company 737-838 aircraft, registered VH-VXG, on a scheduled passenger service from Adelaide, SA to Alice Springs NT.

At a speed of approximately 140 kts, the crew reported an abrupt, uncommanded yaw. Corrective action was applied, engine parameters checked, and the takeoff was continued without further incident. The crew advised Air Traffic Control of the uncommanded yaw and contacted the operator's maintenance watch for advice. The crew subsequently returned the aircraft to Adelaide Airport. The wind at the time was reported to be light (approximately 3 kts) from the east.

Data from the aircraft's Flight Data Recorder was recovered and downloaded by the Australian Transport Safety Bureau (ATSB) for review. That review indicated that the input to the aircraft rudder was not uncommanded and that the rudder pedals moved proportionally to the rudder surface deflection at all times. An engineering examination of the aircraft did not identify any reason for the uncommanded yaw and the aircraft was released back to service.

Due to a previous, similar, event at Adelaide Airport on 15 Dec 2006 (ATSB occurrence 200607627), the aircraft operator sought advice from the aircraft manufacturer. The aircraft manufacturer reviewed the data from the Flight Data Recorder and concluded that the recorded event was not a result of an uncommanded aircraft rudder input, asymmetric thrust, nose-wheel steering or asymmetric brake application.

While the nature of the uncommanded yaw could not be positively identified, it is likely that the event was related to an atmospheric disturbance during the take-off run.

The ATSB continues to monitor such reported uncommanded yaw events and has reported similar events in the past (see occurrence reports 200607627, 200500994 and 199703237 available on the ATSB website: www.atsb.gov.au).

THE AUSTRALIAN TRANSPORT SAFETY BUREAU

The Australian Transport Safety Bureau (ATSB) is an operationally independent multi-modal Bureau within the Australian Government Department of Transport and Regional Services. 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

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