



Australian Government

Australian Transport Safety Bureau

Turbulence event involving a Boeing 767, VH-OGU

near Sydney Airport, New South Wales, 8 November 2013

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Published by: Australian Transport Safety Bureau
Postal address: PO Box 967, Civic Square ACT 2608
Office: 62 Northbourne Avenue Canberra, Australian Capital Territory 2601
Telephone: 1800 020 616, from overseas +61 2 6257 4150 (24 hours)
Accident and incident notification: 1800 011 034 (24 hours)
Facsimile: 02 6247 3117, from overseas +61 2 6247 3117
Email: atsbinfo@atsb.gov.au
Internet: www.atsb.gov.au

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Addendum

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Turbulence event involving a Boeing 767, VH-OGU

What happened

On 8 November 2013, the captain and first officer operating a Qantas Boeing 767 aircraft, registered VH-OGU, prepared to conduct a scheduled passenger service from Melbourne, Victoria to Sydney, New South Wales. The crew obtained the relevant weather information, with no requirements for holding fuel or an alternate¹ indicated.

Prior to departure, the crew also obtained the Automatic Terminal Information Service (ATIS) for Sydney, which advised of windshear on approach to runway 34 Left, and moderate turbulence below 5,000 ft.

During the descent into Sydney, the crew switched on the seatbelt sign at about 10,000 ft above mean sea level (AMSL). At about the same time, they observed lightning to the right of the aircraft's track, with a corresponding red return on the aircraft's weather radar display.

At about 2026 Eastern Daylight-savings Time,² while on approach and descending through 4,200 ft AMSL, the aircraft encountered moderate turbulence for about 2 minutes. At about 3,000 ft AMSL, the crew elected to discontinue the approach, and conducted a missed approach. During the subsequent climb, passing about 4,200 ft AMSL, the aircraft encountered severe turbulence.

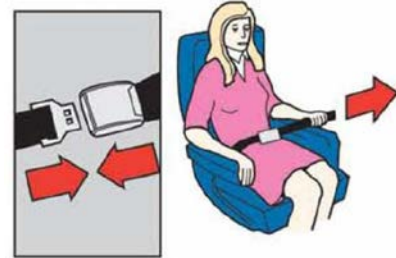
The crew reported that full go-around power was required to maintain altitude and speed, and they experienced difficulty controlling the aircraft. In the cabin, one passenger sustained a serious head injury from a laptop computer that fell from an overhead locker. One other passenger sustained a minor rib injury and a third passenger sustained a minor injury from an iPad.

The crew subsequently obtained a clearance from air traffic control (ATC) to climb to 8,000 ft AMSL and conduct orbits. During the climb, the aircraft encountered turbulence lasting several minutes.

After orbiting for about 20 minutes, ATC advised that a number of aircraft had landed successfully and the crew commenced an approach to runway 16 Right. Passing about 5,000 ft AMSL, the aircraft again encountered severe turbulence and was difficult to control, and the crew again conducted a missed approach and commenced a turn to the north.

At about 2127, based on the remaining fuel quantity and the turbulence on the approach to Sydney, the crew declared a 'PAN'³ and elected to divert to Williamstown, New South Wales. The aircraft landed at Williamstown with fuel reserves intact. On arrival, the aircraft was met by an ambulance and the injured passengers were transferred to hospital for treatment.

Keep your seatbelt fastened



Source: ATSB

¹ Specified weather conditions or facilities for a particular aerodrome such that, if the weather conditions or facilities are less than the alternate minima, the pilot in command must provide for a suitable alternate aerodrome.
² Eastern Daylight-savings Time (EDT) was Coordinated Universal Time (UTC) + 11 hours.
³ An internationally recognised radio call announcing an urgency condition which concerns the safety of an aircraft or its occupants but where the flight crew does not require immediate assistance.

Meteorological information

The Bureau of Meteorology provided the ATSB with a report detailing the weather at the time of the incident including conditions, forecasts, warnings and satellite and radar imagery. A strong and gusty south-westerly change approached Sydney Airport and produced windshear as the change encountered the north easterly sea-breeze.

The wind profiler at Sydney Airport recorded a significant change in wind speed and direction at about 2015, resulting in windshear between 4,000 ft and 5,000 ft. This may have caused a rapid loss of at least 60 kt of headwind for aircraft on descent.

Safety message

Turbulence is a weather phenomenon responsible for the abrupt sideways and vertical jolts that passengers often experience during flights, and is the leading cause of in-flight injuries to passengers and cabin crew.

The Aviation Safety Bulletin *Staying Safe against In-flight Turbulence*:

www.atsb.gov.au/publications/2008/ar2008034.aspx published by the Australian Transport Safety Bureau (ATSB) identified that 99 per cent of people on board an aircraft receive no injuries during a typical turbulence event. Between January 1998 and May 2008, 339 turbulence events were reported to the ATSB by the airlines, which resulted in over 150 minor and serious injuries.

This incident serves as a timely reminder to passengers to safely stow any carry-on baggage, laptops, iPads and other items in the overhead locker or under the seat in front of you, particularly when the seatbelt light is turned ON. These items can become projectiles during turbulence if not properly secured.

General details

Occurrence details

Date and time:	8 November 2013 – 2026 EDT	
Occurrence category:	Serious incident	
Primary occurrence type:	Turbulence event	
Location:	near Sydney Airport, New South Wales	
	Latitude: 33° 56.77' S	Longitude: 151° 10.63' E

Aircraft details

Manufacturer and model:	The Boeing Company 767	
Registration:	VH-OGU	
Operator:	Qantas Airways Limited	
Serial number:	29118	
Type of operation:	Air transport high capacity - Passenger	
Persons on board:	Crew – 9	Passengers – 179
Injuries:	Crew – Nil	Passengers – 1 serious, 2 minor
Damage:	Nil	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in:

independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

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.

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

It is not a function of the ATSB to apportion blame or determine liability. At the same time, 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.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope, fact-gathering investigation was conducted in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.