



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving a Cessna 182, VH-AHC

100 km SW of Bourke, New South Wales, on 5 July 2015

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Addendum

Page	Change	Date

Collision with terrain involving a Cessna 182, VH-AHC

What happened

On 5 July 2015, the pilot of a Cessna 182 aircraft, registered VH-AHC, conducted a local flight from a private airstrip about 100 km south-west of Bourke, New South Wales. The aircraft took off towards the west. After a flight of about 15 to 20 minutes, the aircraft returned overhead the airstrip. Based on the indicated wind, the pilot elected to conduct an approach to land towards the south.

When on final approach to land, at about 5 ft above ground level, the aircraft sank rapidly. The aircraft landed heavily and the nose wheel detached from the aircraft. The aircraft then bounced into the air, touched down for a second time, and dug into soft ground. The aircraft flipped over and came to rest inverted, resulting in substantial damage (Figure 1). The pilot and two passengers sustained minor injuries.

Pilot comments

The pilot reported that the property had received about 100 mm of rain over a period of 2 weeks, which had stopped about 7 days prior to the incident. Cold weather in the intervening period had prevented the soil from drying. Prior to taking off, the pilot had driven over the runway surface and assessed the surface to be suitable for landing. However, below the runway surface, there was a soft layer of earth. This layer extended about 500 mm down and was not evident during the runway inspection.

The pilot was unsure what caused the aircraft to sink faster than usual. The wind was light and variable. The additional sink and high rate of descent combined with the soft surface led to the aircraft landing gear digging in and flipping the aircraft over.

Figure 1: Accident site



Source: Aircraft owner

Safety message

This incident highlights the importance of the identification and management of risks associated with unsealed airfields. Potential hazards such as changes in the runway surface following rain can be hard to detect. Changes in the runway surface can adversely affect the outcome of a hard landing.

The ATSB report regarding a similar incident is available on the ATSB website at [AO-2015-038](#).

General details

Occurrence details

Date and time:	5 July 2015 – 1530 EST	
Occurrence category:	Accident	
Primary occurrence type:	Collision with terrain	
Location:	100 km SW of Bourke, New South Wales	
	Latitude: 30° 43.48' S	Longitude: 145° 16.57' E

Aircraft details

Manufacturer and model:	Cessna Aircraft Corporation 182	
Registration:	VH-AHC	
Serial number:	18260495	
Type of operation:	Private	
Persons on board:	Crew – 1	Passengers – 2
Injuries:	Crew – 1 (Minor)	Passengers – 2 (Minor)
Damage:	Substantial	

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.