



Australian Government

Australian Transport Safety Bureau

Loss of control during landing, involving Cessna 182, VH-LMA

Tyabb Aerodrome, Victoria, 7 December 2013

ATSB Transport Safety Report

Aviation Short Investigation

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Addendum

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Loss of control during landing, involving Cessna 182 VH-LMA

What happened

On 7 December 2013, at 0550 Eastern Daylight-saving Time, the pilot of a Cessna 182 aircraft, registered VH-LMA, departed Albury, New South Wales, on a private flight to the Tyabb aeroplane landing area (ALA), Victoria. The flight was being conducted under the instrument flight rules (IFR), and on board were the pilot and one passenger.

The pilot reported that the weather was fine and it was a relatively smooth flight. During the cruise, the pilot checked the wind displayed on the GPS, and noted it was about 230° T at 20 knots, which was similar to the forecast he obtained the night before.

At about 0702, the aircraft left controlled airspace on descent into Tyabb. When about 13 NM from the airfield, the pilot broadcast the aircraft's current position and intentions on the Tyabb common traffic advisory frequency (CTAF). The pilot heard no other transmissions on the CTAF frequency. With about 6 NM to run, the pilot levelled the aircraft at 1,100 ft to prepare to join the circuit. He reported initially having some difficulty locating the airport, however by 4 NM had identified the runway and joined an extended left base for runway 17.

During the base leg, he again broadcast on the CTAF, then completed the pre-landing checks, except for selecting the final stage of flap. When on final approach, he checked the secondary windsock (Figure 1) and noted the wind was predominantly crosswind from the right, gusting around 5-10 knots. With the final stage of flap selected, the aircraft touched down on the main wheels about 20-30 metres past the runway threshold, close to the centreline. The pilot estimated that the aircraft touchdown speed was about 65 knots. During the landing roll, he applied a small amount of right aileron to counter the crosswind.

When the aircraft had slowed to about 50 knots, he began to apply the brakes. At about the same time, a gust of wind pushed the aircraft to the left. The pilot applied right rudder in an attempt to steer the aircraft back to the centreline, but stated the aircraft pulled to the left and felt like the left brake had locked. The grass verge next the runway was wet due to recent heavy rain. The aircraft rapidly decelerated, and continued along a path through the wet grass a few metres to the left of the sealed runway. As it stopped, the aircraft nosed forward, and then tipped over onto its back (Figure 2).

The pilot and his passenger were hanging upside down, and due to their weight on the straps, were unable to release the seatbelts. Fortunately, a person had been waiting for the aircraft to arrive, and quickly rendered assistance. The young passenger was able to slip through the harness and was carried a safe distance from the aircraft by the assistant. The pilot then instructed the assistant to find the pocketknife which he kept in a bin between the two front seats, while he reached to shut off the fuel and master switch. The pocketknife was located on the now upside down aircraft ceiling and was used to cut the seatbelt and free the pilot. Both the pilot and his passenger received minor injuries and the aircraft was substantially damaged.

VH-LMA damage



Source: Victoria Police

Pilot comments

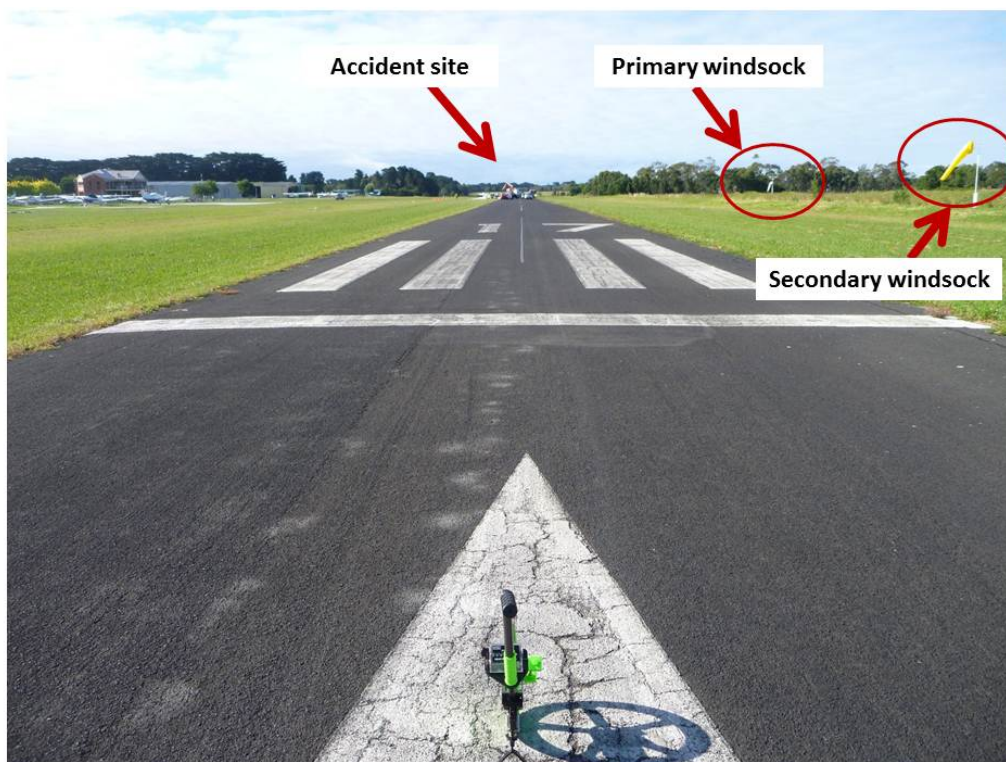
As there is no terminal area forecast (TAF) service available at Tyabb, the pilot planned the flight using the nearby Moorabbin Airport weather information. Moorabbin has a Category B¹ TAF service and also an Automatic Weather Information Service (AWIS) available if the airport is uncontrolled. On this occasion, the pilot did not call the Tyabb airport operator for prior permission as required in the en route supplement Australia (ERSA).

The pilot's normal procedure was to overfly non-controlled aerodromes at the recommended 1500 ft above ground level (AGL). This allowed time to assess the wind, check the runway status, check for traffic and prepare to join the circuit. On this occasion, wanting to comply with the ERSA noise abatement procedure notes for Tyabb, which include an instruction to avoid overflying the aerodrome and the Tyabb township unless operationally required, coupled with the lack of other traffic he elected to join base leg at circuit altitude.

Also, in hindsight, the pilot felt that if he had applied right rudder a little earlier during the landing roll, this may have prevented the aircraft leaving the sealed runway, and onto the sodden grass verge.

He also commented on his foresight to carry a pocket knife for emergencies. In future he planned to strap the pocket knife to the aircraft fire extinguisher.

Figure 1: Approach to runway 17 at Tyabb ALA



Source: Victoria Police

¹ A Category B weather services applies to major domestic airports with a control tower, with passenger numbers above 40,000 pa. The TAF service is issued 6 hourly and valid for 12, 18 or 24 hours. There is also a continuous MET watch and amendment service (Airservices AIP GEN 3.5-4).

En route supplement Australia (ERSA) entry for Tyabb ALA

Tyabb is listed as an uncertified aerodrome. This meant that the movement areas and lighting details are subject to change without prior notice and are not subject to Notices to Airman (NOTAMs)² action. Pilots and operators must contact the aerodrome operator directly to ensure currency and the accuracy of aerodrome information. Prior permission is required (PPR) to operate at this ALA.

Figure 2: VH-LMA showing path through the grass verge



Source: Victoria Police

ATSB comment

A search of the ATSB database for fixed wing, private operation accidents, 2004 to 2013 found the landing phase accounted for 33% of all accidents. The take-off and initial climb phases together accounted for 25% of accidents from this group.

Safety message

It is important in the pre-flight planning to obtain all possible information for the flight, and where a full NOTAM or TAF service is not available, to contact the airfield operator and check the airport status. By not flying over the primary windsock where warning signals to the pilot are placed, the pilot also missed the opportunity to notice any unserviceability markers and to assess the wind near ground level.

² A Notice to Airmen advises personnel concerned with flight operations of information concerning the establishment, condition or change in any aeronautical facility, service, procedure, or hazard, the timely knowledge of which is essential to safe flight.

Actions such as having a responsible person knowing the aircraft's flight plan and estimated arrival time, especially as in this case, where ATC search and rescue service (SARWATCH)³ is cancelled in the circuit is advisable. These and other considerations in the pre-flight planning process are covered step by step in the Civil Aviation Safety Authority (CASA) publication.

Flight Planning – always thinking ahead. It is available through the CASA online store at: www.casa.cart.net.au/epages/casa.sf/en_AU/?ObjectPath=/Shops/casa1/Products/SP88

For airstrips such as Tyabb which do not have a regular NOTAM or TAF service, making a phone call to the local operator may assist in making the decision whether to land there, or whether to consider an alternative. The following publication provides additional information on decision making scenarios:

Decision making for general aviation pilots:
www.easa.europa.eu/essi/egast/2011/04/decision-making/

The Civil Aviation Safety Authority has produced the “Out-n-Back” video series covering topics such Aerodromes, Navigation and ALA's and Precautionary search and landing operations.

This series is available at: www.services.casa.gov.au/outnback/

General details

Occurrence details

Date and time:	7 December 2013 – 0720 EDT	
Occurrence category:	Accident	
Primary occurrence type:	Loss of ground control	
Location:	Tyabb ALA, Victoria	
	Latitude: 38° 16.00' S	Longitude: 145° 10.50' E

Aircraft details

Manufacturer and model:	Cessna Aircraft Company 182 S	
Registration:	VH-LMA	
Serial number:	18280816	
Type of operation:	Private	
Persons on board:	Crew – 1	Passengers – 1
Injuries:	Crew – Minor	Passengers – Minor
Damage:	Substantial	

³ The time that Airservices Australia has oversight of the flight.

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.