



**Australian Government**

**Australian Transport Safety Bureau**

# Collision with terrain involving a Cessna 172, VH-ZZD

near Putty, New South Wales, 27 October 2014

**ATSB Transport Safety Report**  
Aviation Occurrence Investigation  
AO-2014-173  
Final – 26 February 2015

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

#### **Publishing information**

**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](mailto:atsbinfo@atsb.gov.au)  
**Internet:** [www.atsb.gov.au](http://www.atsb.gov.au)

© Commonwealth of Australia 2015



#### **Ownership of intellectual property rights in this publication**

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia.

#### **Creative Commons licence**

With the exception of the Coat of Arms, ATSB logo, and photos and graphics in which a third party holds copyright, this publication is licensed under a Creative Commons Attribution 3.0 Australia licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form license agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.

The ATSB's preference is that you attribute this publication (and any material sourced from it) using the following wording: *Source:* Australian Transport Safety Bureau

Copyright in 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.

#### **Addendum**

Page	Change	Date

# Collision with terrain involving a Cessna 172, VH-ZZD

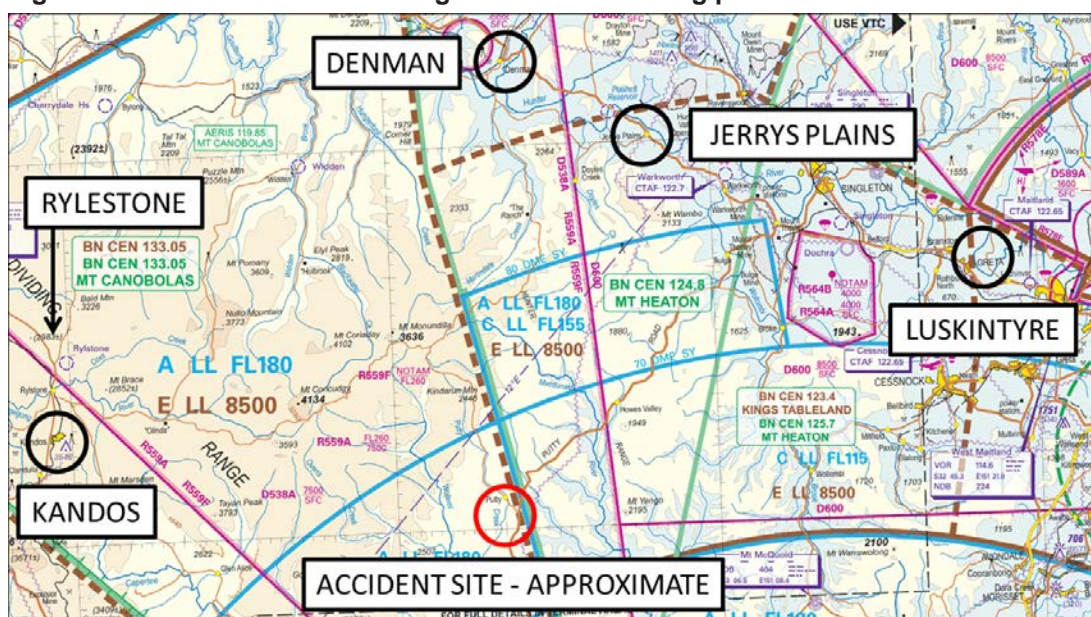
## What happened

On 27 October 2014, at about 1030 Eastern Daylight-savings Time (EDT), the pilot of a Cessna 172 aircraft, registered VH-ZZD, departed Ballarat, Victoria, for Luskintyre, New South Wales, on a private flight under the visual flight rules.<sup>1</sup> The pilot had planned the flight carefully, and although he had adequate fuel to reach Luskintyre without refuelling, he planned to reconsider his progress at Temora, New South Wales, and land for additional fuel if required.

The pilot encountered some poor weather during the early stages of the flight and, although it was unplanned, he elected to land at Wangaratta, Victoria, to take a break and have some refreshments. While at Wangaratta, he also took the opportunity to add some fuel. After a short break and refuel, the pilot continued to Temora, where he elected to land for another break. The pilot re-assessed his fuel requirements at Temora, and determined that he had sufficient fuel to continue to Luskintyre with ample reserve without refuelling.

After departing Temora, the pilot planned to overfly Rylestone, Denman and Jerrys Plains, en route to Luskintyre. The flight proceeded as planned to about Kandos (just south of Rylestone), where the pilot visually fixed his position. At that point, rather than continuing as planned overhead Rylestone then on to Denman, the pilot elected to track directly to Luskintyre (Figure 1).

Figure 1: Extract from Visual Navigation Chart showing planned route and accident site



Source: Airservices Australia – annotations made by the ATSB

The direct track between Kandos and Luskintyre was over heavily treed and undulating terrain, leaving the pilot unable to positively visually fix his position. As he continued in an easterly direction, the pilot grew increasingly concerned about the possibility of infringing controlled airspace further to the east. Conditions at the time were windy and although the pilot recalled that the visibility was good, there may have been some bushfire smoke in the area.

<sup>1</sup> Visual Flight Rules are a set of regulations which allow a pilot to only operate an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going.

Rather than risk infringing controlled airspace, the pilot decided to make a precautionary landing to ascertain his position. He located a valley that appeared to have some cleared areas, then circled for several minutes assessing precautionary landing options. The pilot commented that precautionary landing options were very limited, but he ultimately selected a paddock that was clear of obstacles, and while relatively short, it offered an uphill landing run to assist in stopping the aircraft.

During his approach to land on the selected paddock, with full flap selected, the pilot found himself overshooting the selected aim point. He endeavoured to recover the profile, but had increasing difficulty maintaining the preferred aim point. Concerned that he would not be able to land safely, the pilot elected to discontinue the approach and commenced a go-around. As the go-around proceeded however, the pilot found that he was unable to climb over trees ahead of the aircraft on rising terrain beyond the far end of the selected paddock. He was able to manoeuvre around a small number of individual trees, but collided with a line of trees, slightly further on. The aircraft was substantially damaged in the collision (Figure 2) and the pilot received serious injuries.

**Figure 2: Aircraft wreckage**



Source: Putty Rural Fire Service

### ***Search and rescue***

The aircraft was fitted with an emergency locator transmitter (ELT) which was activated by the impact. An overflying aircraft detected the ELT signal at about 1715 EDT, and search and rescue authorities were alerted. Sometime after the accident, the pilot was also able to activate a portable locator beacon. In addition, the pilot had left a Flight Note at the point of departure. When the pilot had not made contact by the nominated time, the holder of the Flight Note commenced enquiries and notified authorities.

The aircraft wreckage was ultimately discovered by a local resident, around 2 hours after the accident, independent of other search and rescue activities. The local resident alerted authorities, who attended the scene and were able to secure the wreckage and provide medical assistance to the injured pilot.

### ***Pilot experience***

The pilot held a private pilot licence and had about 270 hours total aeronautical experience, all under the visual flight rules. He had flown about 23 hours, in the 90 days preceding the accident.

## Safety message

In many cases, deviation from a flight plan is necessary to ensure continued safe flight. Where deviation from a flight plan is not essential, pilots are encouraged to consider the risk of operational complications such as potential difficulties with navigation or fuel management. Deviation from a flight plan or Flight Note may also affect search and rescue activities in the event of an accident, to the extent that a search is conducted in the wrong place.

Where available, pilots unsure of their position or requiring navigational assistance, are encouraged to seek Flight Following services from ATC. In this case, contact with ATC may have allayed the pilot's concerns about the prospect of infringing controlled airspace, and negated the need to consider a precautionary landing. A fact sheet regarding Flight Following services is available on the Airservices Australia website via the following link, under the group heading *working with air traffic control*: [www.airservicesaustralia.com/publications/safety-publications/](http://www.airservicesaustralia.com/publications/safety-publications/)

With respect to precautionary landings, pilots are encouraged to initiate an early go-around as soon as there is any doubt regarding the prospects of a safe landing. The potential for a safe go-around may diminish as an aircraft continues an approach, particularly where there is rising terrain or obstacles beyond the selected precautionary landing area. With the assistance of a suitably qualified instructor, pilots are encouraged to regularly practise the skills required to make a safe precautionary landing.

While in this case the aircraft was found by a local resident independent of search and rescue activities, the accident nonetheless provides a reminder of the potential value of a Flight Note. Pilots are encouraged to prepare a Flight Note where relevant, and to ensure that the information provided on the Flight Note is as accurate as possible. Pilots are also encouraged to advise ATC of any deviation from the planned route, to ensure that search and rescue authorities have access to updated information where relevant. More information about Flight Notes is available in the Visual Flight Rules Guide, available on the CASA website at [www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC\\_90008](http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_90008)

## General details

### Occurrence details

Date and time:	27 October 2014 – 1715 EDT	
Occurrence category:	Accident	
Primary occurrence type:	Collision with terrain	
Location:	Near Putty, New South Wales	
	Latitude: 32° 58.75' S	Longitude: 150° 40.65' E

### Aircraft details

Manufacturer and model:	Cessna 172G	
Registration:	VH-ZZD	
Serial number:	17254242	
Type of operation:	Private	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – 1	Passengers – Nil
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.