



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving Cessna 172N, VH-JGR

Near Kagaru Queensland, 7 November 2012

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Aviation Occurrence Investigation
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Collision with terrain involving Cessna 172N, VH-JGR

What happened

On 7 November 2012, at about 1000 Eastern Standard Time¹ a Cessna 172N registered VH-JGR (JGR) departed Archerfield Airport, Queensland on a training flight. The purpose of the flight was to conduct solo pre-test revision, prior to the pilot performing the Private Pilot Licence (PPL) flight test. The aircraft was booked for 2 hours. During the flight, the aircraft impacted terrain and was substantially damaged (Figure 1).

The pilot reported that he had very little memory of the flight, but did recall that he intended to fly to the southern training area, to practice holding heading and altitude for his upcoming flight test. The pilot stated that his usual practise was to track via Jimboomba, Beaudesert and Boonah before returning to Archerfield via Jimboomba. The pilot had not submitted a flight plan or left a flight note with a responsible person or lodged a Search and Rescue Time (SARTIME) with the Airservices Australia.

Following the accident, the pilot recalled regaining consciousness and crawling to JGR to broadcast a distress call on the aircraft radio. The aircraft was fitted with a personal locator beacon (PLB) but the pilot was unable to locate it after the accident to activate it.

At about 1330, an aircraft in the area reported hearing two mayday calls on the Brisbane Centre Frequency, the calls were very faint and not heard by Brisbane Centre. The area controller requested the pilot of another aircraft in the area to track south from Kagaru to investigate. At about 1410, a Cessna 172 was sighted in a paddock in uneven tussock strewn country about 2.5 Km south of Kagaru airplane landing area (ALA) on the runway heading.

The pilot was the only person on board and suffered severe injuries as a result of the accident and at about 1500, he was airlifted to hospital.

VH-JGR



Source: Queensland Police Service

Weather

The weather was reported as fine, with light winds from the north-east.

Pilot experience

The pilot held a student pilots licence and had passed a General Flying Progress Test (GFPT), on 1 November 2008. At the time of the accident, the pilot had a total of 100.5 hours, 17 of which were logged as solo. On 15 February 2012, the pilot completed a PPL pre-test review. During the review, a number of areas were identified as requiring improvement. The pilot did not fly again until 25 October, when he completed a 90-day check ride of 1.5 hours duration. The pilot's next flight was the accident flight on 7 November.

¹ Eastern Standard Time was Coordinated Universal Time (UTC) + 10 hours.

Insurance report

A representative of the insurer attended the accident site and examined the wreckage. The insurer concluded that JGR collided with the ground at about 50-60 knots at about 60° left wing down and about 20° nose down, at a high rate of vertical descent with the engine at idle power.

Flying training school

The training school procedures required a student pilot to have a flight authorised by an instructor. On the day of the accident, the student pilot departed in the aircraft without the flight being appropriately authorised by an instructor, consequently the details of the flight were not recorded or monitored for search and rescue purposes.

Figure 1: VH-JGR



Source: Queensland Police Service

ATSB comment

The aircraft activated air switch indicated that the aircraft was airborne for approximately 45 minutes prior to the accident, placing the time of the accident at approximately 1100 or 3 hours prior to the aircraft being located.

Safety action

Whether or not the ATSB identifies safety issues in the course of an investigation, relevant organisations may proactively initiate safety action in order to reduce their safety risk. The ATSB has been advised of the following proactive safety action in response to this occurrence.

Flying School

In response to this accident, the flying school has amended their procedures so that a student pilot is not provided with the aircraft keys prior to the flight being appropriately authorised.

Safety message

This accident highlights the importance of lodging a Search and Rescue Time (SARTIME), Flight Plan or Flight Note with a responsible person, to eliminate any major delays in commencing a search. Failure to do this means that you are relying on being able to get an emergency call out, using your Emergency Locator Transmitter (ELT) to alert the Rescue Coordination Centre Australia (RCC) or relying on someone noticing that you have gone missing.

The possibility of an emergency situation should be considered by all pilots before take-off. Basic safety preparation before each flight could save your life and, at the very least, speed up your rescue. The chances of surviving the initial accident decrease rapidly with time. Knowing that someone is aware of your situation and a search is being initiated, provides a major morale boost and greatly improves your chances of survival.

For further reading on aviation search and rescue and improving your chances of survival is available from:

- www.amsa.gov.au/publications/documents/AviationSearchandRescue.pdf

General details

Manufacturer and model:	Cessna 172N	
Registration:	VH-JGR	
Type of operation:	Private	
Primary occurrence type:	Collision with terrain	
Location:	Near Kagaru ALA, Queensland	
	Latitude: S 27° 51.21'	Longitude: E 152° 55.50'
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 1 Serious	Passengers – 0
Damage:	Substantial	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The Bureau 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.