

Collision with a tree involving a Cessna 172, VH-EEC

19 km NNW Albany, Western Australia, 13 July 2014

ATSB Transport Safety Report Aviation Occurrence Investigation AO-2014-124 Final – 3 September 2014 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 Internet: www.atsb.gov.au

© Commonwealth of Australia 2014



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 a tree involving a Cessna 172, VH-EEC

What happened

On 13 July 2014, the pilot of a Cessna 172 aircraft, registered VH-EEC (EEC), conducted a private flight from The Lily to Narrikup aeroplane landing areas (ALA), Western Australia (Figure 1), with two passengers on board.

Figure 1: Narrikup – excerpt from The Country Guide

Source: Flightace and witness recollection

At about 1320 Western Standard Time (WST), the pilot broadcast an 'inbound' call when about 10 NM north-east of Narrikup at about 6,500 ft above mean sea level (AMSL). He elected to conduct an approach to runway 06 and overflew the runway at about 1,900 ft AMSL. He observed the windsock which did not indicate any significant crosswind. The aircraft then descended to circuit height and joined on the crosswind leg for runway 06.

When established on final for runway 06, the pilot reported that he had selected two stages of flap and had the aircraft stabilised at about 65 kt. When about 50 ft above ground level, the pilot reported that the aircraft encountered a wind gust which carried the aircraft about 30 m to the right. The pilot moved the aileron controls into wind and applied full power to commence a go-around; however the aircraft's right wing collided with trees on the right side of the landing area. The pilot reported that the right wing may have stalled as he applied full right aileron. The aircraft fell to the ground resulting in substantial damage (Figure 2).

Figure 2: Accident site



Source: Brian Holman

Meteorological information

The Bureau of Meteorology's weather observations at Albany aerodrome, about 19 km from Narrikup indicated that the wind between 1320 and 1340 WST was 8-10 kt from the north.

Witness comments

In a report provided to the ATSB, witnesses to the accident provided the following comments:

- The aircraft appeared to be in a high angle of bank, nose down attitude when turning onto a close base leg.
- When on final, the aircraft appeared to overshoot the runway centreline to the right, turn sharply to the left to regain the centreline and then turn sharply to the right.
- As the aircraft crossed the threshold, it entered a right bank of about 30° and turned to the right with a high nose up attitude. As the wings began to roll level, the right wing struck a tree.
- The engine noise indicated full throttle had been applied, and the aircraft struck another tree, rolled nose down and cartwheeled through a second row of trees to the ground.
- The pilots of two other aircraft that had arrived at Narrikup prior to EEC had both conducted a
 go-around after their first approach was considered unsuitable for landing. Both aircraft had
 landed safely on the second attempt.

Safety message

The ATSB SafetyWatch highlights the broad safety concerns that come out of our investigation findings and from the occurrence data reported to us by industry. One of the safety concerns is that general aviation pilots continue to be involved in accidents that are mostly avoidable



<u>www.atsb.gov.au/safetywatch/ga-pilots.aspx</u>. A range of procedures and requirements exist to enable pilots to manage the hazards associated with common avoidable accident types.

A go-around, the procedure for discontinuing an approach to land, is a standard manoeuvre performed when a pilot is not completely satisfied that the requirements for a safe landing have been met. The need to conduct a go-around may occur at any point in the approach and landing phase, but according to the United States Federal Aviation Administration (FAA), the most critical go-around is one initiated when very close to the ground. Consequently the sooner a condition that warrants a go-around is recognised, the safer the manoeuvre will be.

The following provide useful information on go-arounds:

- Aviation safety explained Go-arounds: www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD:1001:pc=PC 91481
- FAA Airplane Flying Handbook, Chapter 8, Approaches and Landings:
 www.faa.gov/regulations policies/handbooks manuals/aircraft/airplane handbook/media/faa-h-8083-3b.pdf

General details

Occurrence details

Date and time:	13 July 2014 – 1330 WST	
Occurrence category:	Accident	
Primary occurrence type:	Collision with terrain	
Location:	19 km NNW Albany aerodrome, Western Australia (Narrikup ALA)	
	Latitude: 34° 47.23' S	Longitude: 117° 43.38' E

Aircraft details

Manufacturer and model:	Cessna Aircraft Company 172R		
Registration:	VH-EEC		
Serial number:	17280077		
Type of operation:	Private		
Persons on board:	Crew – 1	Passengers – 2	
Injuries:	Crew – Nil	Passengers – 1 (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.