



Australian Government

Australian Transport Safety Bureau

Controlled flight into terrain, involving PA34, VH-COU

Denmark ALA, Western Australia, 13 March 2014

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Addendum

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Controlled flight into terrain, involving PA34, VH-COU

What happened

On 13 March 2014, at about 1715 western standard time (WST), a Piper Seneca aircraft, registered VH-COU, departed Jandakot, on a private, visual flight rules (VFR) flight to the Denmark aircraft landing area (ALA), Western Australia. The pilot was the sole person on board.

The departure from Jandakot and subsequent flight were uneventful. There is no meteorological service available for Denmark, so as the aircraft approached the ALA, the pilot requested a weather report for nearby Albany. The report gave the Albany weather as broken low cloud, with a west-south-westerly wind of about 10 knots.

The runways at Denmark ALA are parallel with an inlet, which is positioned less than 2 NM from the ocean. There are also hills around the ALA and tall trees along the edge of the runways. As a consequence, the weather, and particularly the wind, is often different from that at Albany. Hence, the pilot used the Albany weather report as a guide only.

At about 1820, COU arrived over the top of Denmark, and the pilot noted a westerly wind of about 15 knots. The wind was blowing straight down runway 27. The pilot regularly flies to Denmark, and knows that at this time of day, the setting sun can restrict visibility when landing on 27. However, to land to the east on runway 09 would have meant accepting a significant tailwind.

Due to the strength of the wind, the pilot elected to land on runway 27. He knew from previous experience that once you get under the sun line on approach, the visibility returns to normal.

The pilot joined the circuit for 27. When on final approach, with the aircraft configured for landing with the landing gear extended and two stages of flap selected, the visibility was normal. A few seconds later, as the aircraft descended below 700 ft, the visibility both inside and outside the aircraft went instantaneously to zero. Totally blinded by the sun glare, the pilot applied full power to initiate a go-around. A few moments later, the aircraft struck the canopy of the rainforest along the right side of the runway.

Still unable to see outside, the pilot was unaware of what the aircraft had struck, or the resultant damage to the aircraft, so conducted some checks. He assessed the handling characteristics of the aircraft as being normal. He noted there was no engine vibration, so elected not to shut down either engine. He also decided to leave both the landing gear and flaps in the current configuration and, as he regained normal visibility, joined for a left downwind, low level circuit onto runway 09.

After completing a normal landing, the pilot shut down the aircraft then egressed safely. The pilot was not injured; however, the aircraft was substantially damaged.

Pilot experience and comments

The pilot had extensive charter and aeromedical flying experience, and had accrued over 11,000 flying hours. He held the position of Chief Pilot for his company, and had been in a similar role for two previous organisations.

In hindsight, he realised that many factors probably contributed to the outcome.

Sunset



Source: Google

In particular:

- Had he departed Jandakot about 15 minutes earlier, the sun would not have been an issue
- He had been influenced by a successful landing on runway 27 at Denmark about two weeks earlier, but had not made an allowance for the sun being lower on the horizon
- His decision to land on runway 27 was influenced by considering it poor airmanship to land with such an excessive tailwind
- He felt the decision not to do an early go-around was affected by always successfully landing at Denmark into the sun: usually, once he descends below the sunline, visibility returns to normal
- He was at a loss to explain why he did not maintain the runway centreline during the go-around. He felt he may have instinctively tried to move his head to the right, out of the blinding sun. Perhaps such an extensive background of charter flying had conditioned him to think of time as money; rather than hold for fifteen minutes while the sun set, he continued with the approach.

Figure 1 and 2: VH-COU damage



Source: Pilot

Safety message

The ATSB conducted a database review of reported occurrences involving sun glare as a contributing safety factor. There were a range of outcomes where sun glare from a rising or setting sun was involved. These included:

- airborne collisions with terrain and objects such as fences, trees, and other aircraft
- difficulty for pilots correctly selecting and setting various switches and controls on the instrument panel; this includes entering incorrect data into the flight management computer
- near collisions, where one or more pilots could not clearly sight another aircraft, and
- ground collisions.

The US Federal Aviation Administration (FAA) has conducted research into sunlight and its association with aviation accidents. This research queried the database over a ten year period from 1988 to 1998 and found 130 accidents in which glare from natural sunlight was found to be a contributing factor. The majority of the events occurred during clear weather, and 55 percent were associated with the approach / landing and take-off / departure phases of flight.

The article is available at:

- www.hf.faa.gov/docs/508/docs/cami/0306.pdf

General details

Occurrence details

Date and time:	13 March 2014 – 1820 WST	
Occurrence category:	Accident	
Primary occurrence type:	Collision with terrain	
Location:	Denmark ALA, Western Australia	
	Latitude: S 34° 56.75' S	Longitude: 117° 23.83' E

Aircraft details

Manufacturer and model:	Piper Aircraft Corporation	
Registration:	VH-COU	
Serial number:	34-7870273	
Type of operation:	Private	
Persons on board:	Crew – 1	Passengers – Nil
Injuries:	Crew – Nil	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.