



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving Piper PA-25, VH-SEH

Seaview, Victoria, on 23 February 2022

ATSB Transport Safety Report

Aviation Occurrence Investigation (Short)

AO-2022-008

Preliminary – 28 June 2022

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Addendum

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Preliminary report

This preliminary report details factual information established in the investigation's early evidence collection phase, and has been prepared to provide timely information to the industry and public. Preliminary reports contain no analysis or findings, which will be detailed in the investigation's final report. The information contained in this preliminary report is released in accordance with section 25 of the *Transport Safety Investigation Act 2003*.

The occurrence

On 23 February 2022, at about 0650 Eastern Daylight-saving Time,¹ the pilot of a Piper Aircraft Corporation PA-25-235/A9, registered VH-SEH, departed Leongatha Aerodrome, Victoria, for a positioning flight about 25 km north to a private landing area² at Seaview.

The aircraft landed at about 0700 in preparation for aerial spreading of superphosphate pellets. The loader driver³ arrived shortly after, finding that the loader's bucket had been pre-filled by the pilot. The loader driver transferred the superphosphate to the aircraft's hopper with the pilot on board. The loader driver could not later recall how much superphosphate had been loaded.

The loader driver then parked the loader at the southern end of the landing area and prepared for the next load. A short time later, the pilot started the aircraft's engine and remained at the southernmost point of the landing area for about 5 minutes.

Based on local weather observations and a video recording made by a nearby witness, the weather at the time of the accident was fine with the wind likely calm.

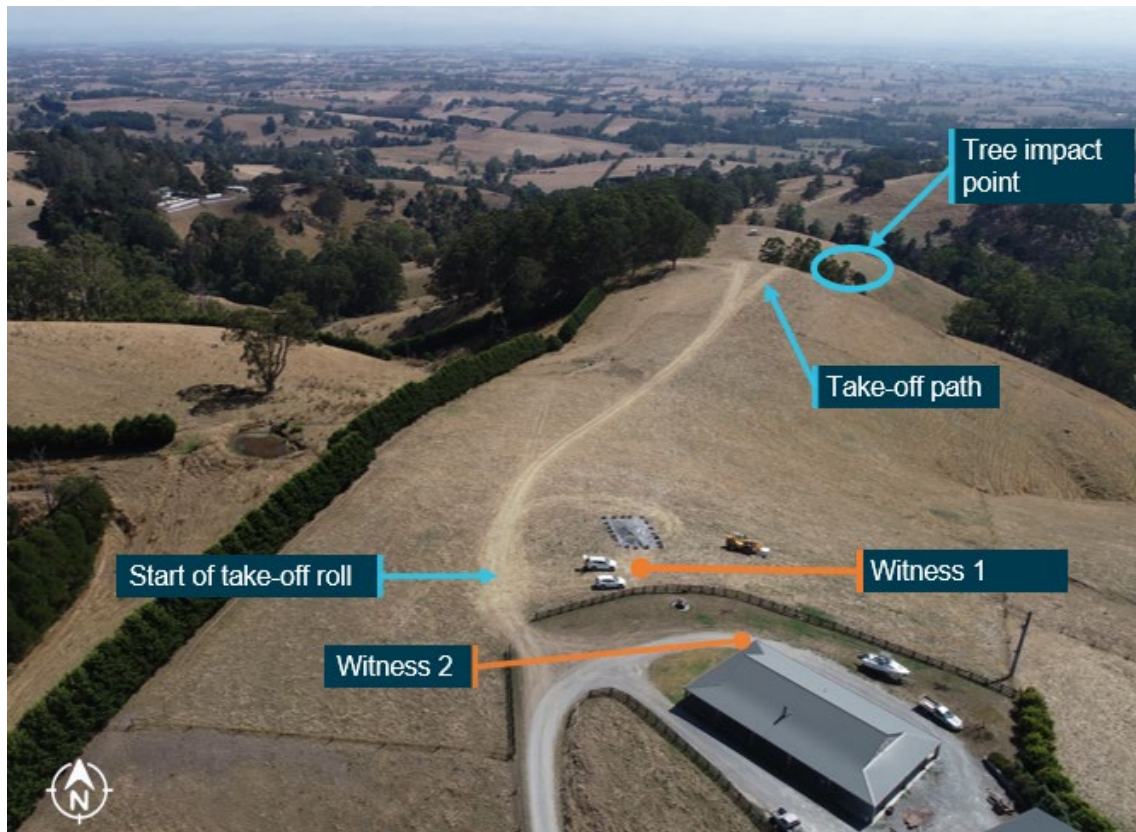
Data from an onboard GPS showed that the pilot commenced the take-off on the prepared runway strip at about 0711 (Figure 1). According to witnesses and the recorded video, the aircraft accelerated along the prepared strip and traversed the right section where the strip split into 2 directions. The aircraft briefly became airborne at a point at the end of the strip, where the terrain dropped away, before the outboard section of the aircraft's left wing impacted trees. The aircraft rolled to the left, pitched down, and collided with terrain about 30 m north of the trees (Figure 2). The pilot was fatally injured and the aircraft was destroyed.

¹ Eastern Daylight-saving Time (EDT): Coordinated Universal Time (UTC) + 11 hours.

² Landing area: a place, whether or not an aerodrome, where an aeroplane is able to take off and land.

³ Loader driver: an operator of loading equipment to support aerial application operations.

Figure 1: Landing area overview



Source: ATSB

Figure 2: Landing area overview showing approximate lift-off point, impact with trees and ground impact point



Source: ATSB

Context

Pilot information

The pilot held a valid class 1 aviation medical certificate and a commercial pilot licence (aeroplane), having completed a flight review on 30 October 2020 and a proficiency check on 11 November 2021. At the time of the accident, the pilot had about 12,350 hours total aeronautical experience.

The pilot was the operator's owner and chief pilot.

Aircraft information

The aircraft was a Piper Pawnee PA-25-235/A9 with a 6-cylinder, normally-aspirated Textron Lycoming O-540-H2A5 engine driving a 2-blade McCauley Propellers 1A200/FA8452 fixed-pitch propeller (Figure 3).

Figure 3: Another Piper PA-25-235/A9 configured for agricultural spreading



Source: ATSB

The aircraft's hopper could hold up to about 700 kg of superphosphate pellets, but its maximum permissible hopper load was 544 kg (considered a full load by the operator's other pilots). There was a clear section in the cockpit to enable the pilot to see how much volume of product was in the hopper.

The exact volume or weight of superphosphate loaded into the aircraft's hopper could not be determined. The operator's other pilots reported that it was normal to take a full load of superphosphate on the first flight from a landing area unless weather and strip surface conditions were unfavourable. In these scenarios, the pilot could opt to take a half load as a first flight.

Landing area

The landing area was normally used for cattle grazing and was prepared as a landing area for aerial application operations once a year. The pilot had not operated from the landing area since 2019.

The prepared strip had been mowed into a 'Y' configuration by the pilot in the days before the accident. It consisted of mowed grass and the surface was rough from previous cattle movement in wet soil. The strip was about 360 m in length and followed the natural terrain, with a downwards then upwards slope before the terrain dropped steeply towards a stand of trees about 60 m from the northernmost end of the strip. The left of the 'Y' was oriented to the left of the trees and the right of the 'Y' was oriented directly towards the trees (Figure 4).

Figure 4: Runway strip Y intersection showing the left and right take-off options with the trees at the runway's end



Source: ATSB

Site and wreckage

The ATSB conducted an on-site examination of the aircraft wreckage (Figure 5). The aircraft impacted the ground inverted with an angle of entry of about 50°. There were no evident pre-impact defects with the flight controls or aircraft structure, and external examination of the engine did not identify any obvious defects. The propeller damage was indicative of the engine driving the propeller with significant power at impact. Preliminary audio analysis of the witness video indicated that the engine was at or close to its maximum rotational speed throughout the take-off.

Figure 5: Wreckage of VH-SEH



Source: ATSB

Further investigation

The investigation is continuing and will include:

- pilot records
- aircraft records
- aircraft weight and balance
- aircraft take-off performance
- further analysis of the witness video recording and downloaded GPS data.

Should a critical safety issue be identified during the course of the investigation, the ATSB will immediately notify relevant parties so appropriate and timely safety action can be taken.

A final report will be released at the conclusion of the investigation.

General details

Occurrence details

Date and time:	23 February 2022 – 0711 EDT	
Occurrence category:	Accident	
Occurrence type:	Collision with terrain	
Location:	Seaview, Victoria	
	Latitude: 38°16'25.56"S	Longitude: 145°56'0.02"E

Aircraft details

Manufacturer and model:	Piper Aircraft Corporation PA-25-235/A9	
Registration:	VH-SEH	
Operator:	Super Planes Pty Ltd	
Serial number:	25-7405565	
Type of operation:	Part 137 Aerial application operations	
Activity:	Agricultural spreading / spraying	
Departure:	Seaview , Victoria	
Destination:	Seaview, Victoria	
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 1 (fatal)	Passengers – 0
Aircraft damage:	Destroyed	