



Australian Government

Australian Transport Safety Bureau

Collision with terrain involving a Morgan Cougar Mk1 aircraft, VH-LDV

19 km north-north-west of West Sale Airport, Victoria on 16 November 2024

ATSB Transport Safety Report
Aviation Occurrence Investigation
AO-2024-058
Preliminary – 18 December 2024

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

Publishing information

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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

At 1730 local time on 16 November 2024, an amateur-built Morgan Cougar Mk 1 aircraft, registered VH-LDV (LDV) and with a pilot and 2 passengers onboard, departed from West Sale Airport, Victoria for a flight over the local area. Flightradar24 data indicated the aircraft conducted a left turn on departure and tracked 8 NM (15 km) north of West Sale Airport to the town of Maffra. The aircraft arrived overhead Maffra shortly after 1736 where LDV made a series of turns overhead the town for about 4 minutes. At 1740, the aircraft departed from overhead Maffra and tracked about 6 NM (11 km) west-north-west towards Tinamba West (Figure 1).

The aircraft conducted a right-hand turn overhead a property at Tinamba West, which belonged to relatives of the aircraft occupants, before commencing a series of left-hand turns (orbits) around a point about 1 km to the south-east of the property over open paddocks. The last data point was at 1747, after LDV had commenced a third left-hand orbit, which recorded the aircraft at an altitude of 450 ft at a groundspeed of 60 kt on a track of 073° True (T).

A closed-circuit television (CCTV) camera, located about 700 m north-north-east of the accident site, captured LDV in a left turn towards the camera. Subsequently, the nose of the aircraft pitched down and the aircraft descended in the left turn behind trees (Figure 2). About 14 seconds later a plume of dark smoke rose up above the trees. The 3 occupants were fatally injured in the accident and the aircraft was destroyed.

Context

Local weather data

A local weather station, about 4 km north of the accident site, recorded the following temperature and wind velocity information at 1745 and 1750 on the day of the accident:

Table 1: Local weather data

Time	Temperature (°C)	Wind speed (kt)	Wind gust (kt)	Wind direction (°T)
1745	27.5	6.2	8.0	124
1750	27.3	6.4	12.8	122

Accident site

The aircraft impacted flat and open terrain at an elevation of about 130 ft and produced a ground scar on a track of 315° T (Figure 3). The length of the wreckage trail was about 30 m from the first ground scar to the propeller spinner, with the fuselage resting on a heading of 303° T. There was a diamond-shaped fuel spray and debris pattern along the wreckage trail.

Fuel was ignited after the ground impact, however, most of the fire damage to the aircraft was confined to the fuselage within the area bounded by the firewall, aft bulkhead (behind rear seats) and the inboard sections of the wings. The wings and tailplane (except the rudder) remained attached to the fuselage. The engine was attached to the firewall and the 3-bladed propeller was attached to the engine. One propeller blade was attached to the hub and the other 2 propeller blades had separated at their roots but were found within the debris field.

Figure 1: Accident flightpath with key timings and locations

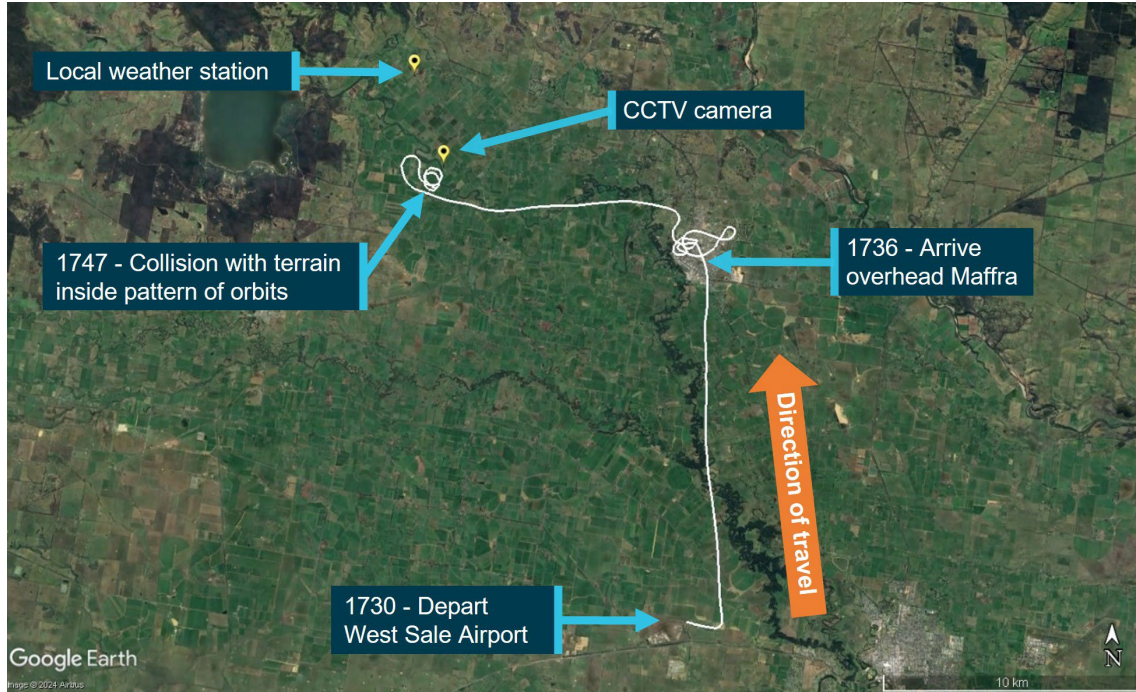
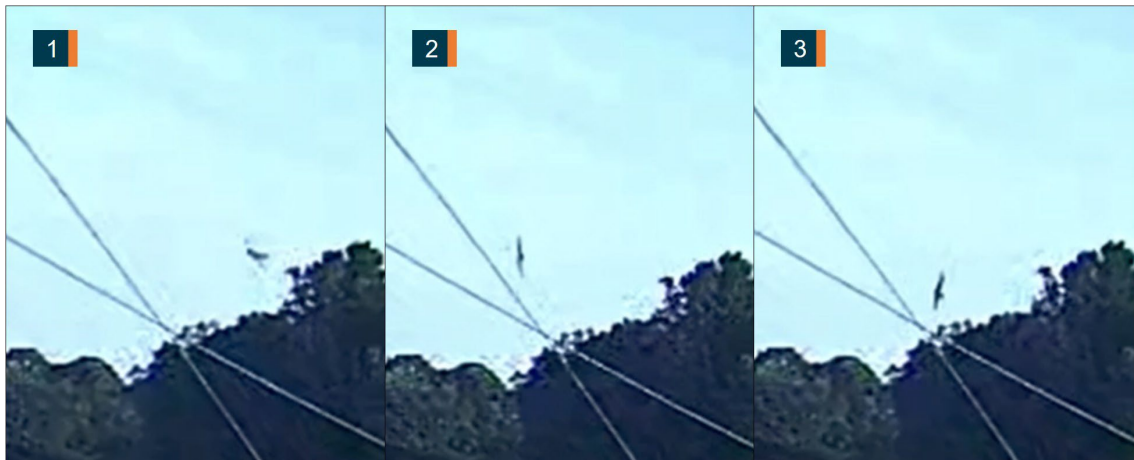


Figure 2: CCTV footage of final turn



Images subject to visual distortion (fisheye lens effect).
Source: Victoria Police, annotated by the ATSB

Figure 3: Accident site



Source: ATSB

Further investigation

To date, the ATSB has:

- examined the accident site
- retrieved hardware and avionics from the wreckage
- collected witness statements, CCTV and drone footage, local weather data, pilot licencing and medical information and aircraft records.

The investigation is continuing and will include:

- examination and analysis of the avionics unit and aircraft hardware
- a review of aircraft records, including design and certification standards
- a review of witness reports
- interviews with key personnel.

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

Acknowledgements

The ATSB acknowledges the support provided by Victoria Police during the onsite investigation phase.

General details

Occurrence details

Date and time:	16 November 2024 – 1747 Eastern Daylight-saving Time	
Occurrence class:	Accident	
Occurrence categories:	Collision with terrain	
Location:	19 km north-north-west of West Sale Airport	
	Latitude: 37.9392° S	Longitude: 146.8633° E

Aircraft details

Manufacturer and model:	Amateur Built Aircraft Morgan Cougar MK1	
Registration:	VH-LDV	
Serial number:	6	
Type of operation:	Part 91 General operating and flight rules-Other	
Activity:	General aviation / Recreational-Unknown general aviation flying-	
Departure:	West Sale Airport, Victoria	
Destination:	West Sale Airport, Victoria	
Persons on board:	Crew – 1	Passengers – 2
Injuries:	Crew – 1 (fatal)	Passengers – 2 (fatal)
Aircraft damage:	Destroyed	

Australian Transport Safety Bureau

About the ATSB

The ATSB is an independent Commonwealth Government statutory agency. It is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers.

The ATSB's purpose is to improve the safety of, and public confidence in, aviation, rail and marine transport through:

- independent investigation of transport accidents and other safety occurrences
- safety data recording, analysis and research
- 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, as well as participating in overseas investigations involving Australian-registered aircraft and ships. It prioritises investigations that have the potential to deliver the greatest public benefit through improvements to transport safety.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, international agreements.

Purpose of safety investigations

The objective of a safety investigation is to enhance transport safety. This is done through:

- identifying safety issues and facilitating safety action to address those issues
- providing information about occurrences and their associated safety factors to facilitate learning within the transport industry.

It is not a function of the ATSB to apportion blame or provide a means for determining 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. The ATSB does not investigate for the purpose of taking administrative, regulatory or criminal action.

Terminology

An explanation of terminology used in ATSB investigation reports is available on the ATSB website. This includes terms such as occurrence, contributing factor, other factor that increased risk, and safety issue.