Australian Government
Australian Transport Safety Bureau

Collision with terrain involving a Oficinas Gerais de Material Aeronautico DHC-1 MK 22 Chipmunk, VH-POR

Jandakot Airport, Western Australia on 26 April 2024

ATSB Transport Safety Report
Aviation Occurrence Investigation
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Addendum

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Preliminary report

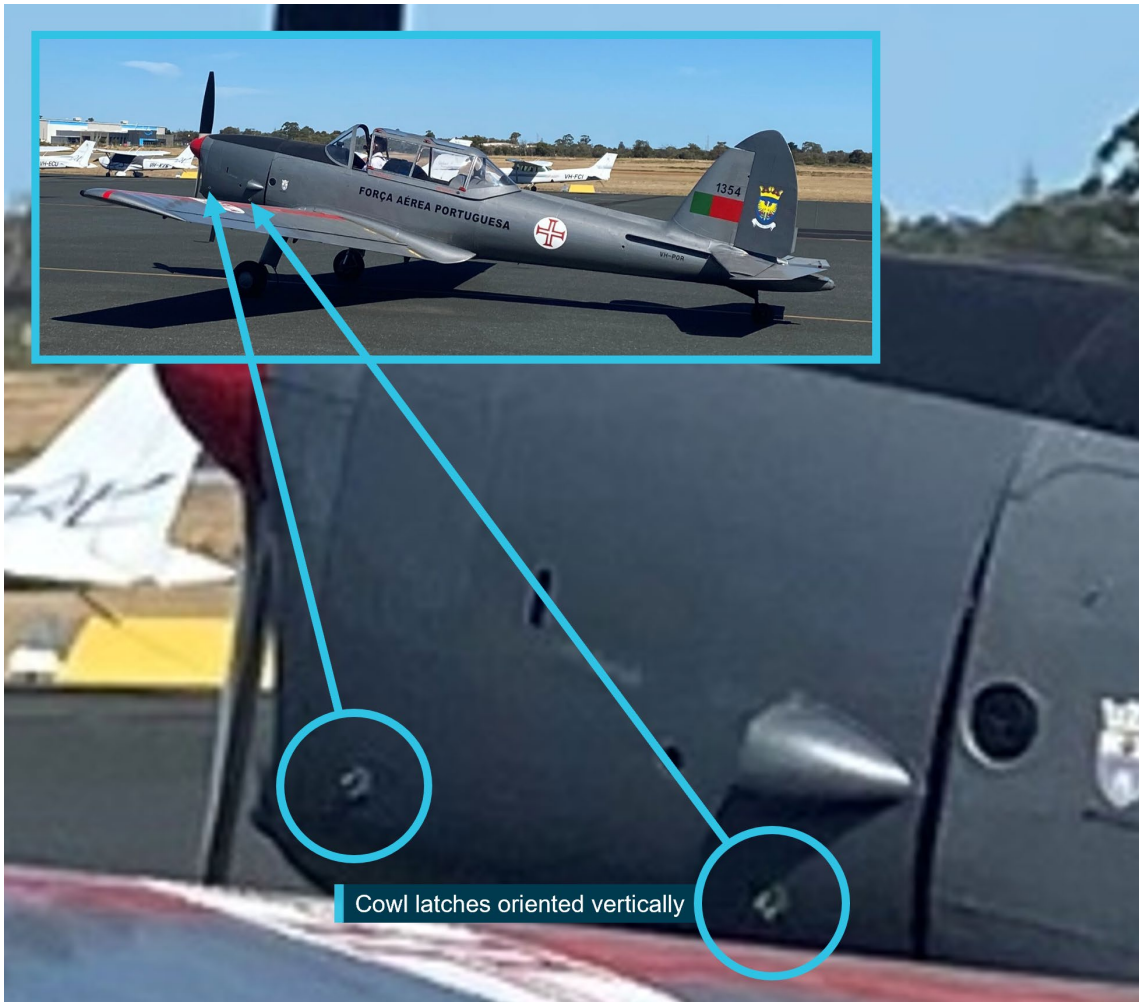
This preliminary report details factual information established in the investigation's early evidence collection phase, and has been prepared to provide timely information to the industry and public. Preliminary reports contain no analysis or findings, which will be detailed in the investigation's final 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 the afternoon of 26 April 2024, the pilot (who was the sole occupant) of a DHC-1 MK 22 Chipmunk, registered VH-POR, commenced taxi for take-off at Jandakot Airport, Western Australia for a private flight. The weather was clear, with the wind about 10 kt from the north-west.

A witness on the southern apron took photographs of the aircraft taxiing past, which show the engine cowl latches on the left side were oriented vertically[1] (Figure 1).

Figure 1: VH-POR taxiing for take-off



The gap at the rear edge of the cowl is normally present when the cowl is closed fully.
Image source: Witness, annotated by the ATSB.

[1] See *Engine cowl*.

The pilot continued to taxi to the end of runway 24L and at 1313 was given clearance to take off. Camera footage recorded the aircraft commencing its take-off roll and becoming airborne about halfway along the runway's length (Figure 2).

Figure 2: Approximate flight path

Image source: Google Earth, annotated by the ATSB.

One witness, located at the run-up bay, recalled seeing something 'flapping' on the aircraft during the take-off. This witness, and witnesses in a nearby building looking through a window, observed the aircraft roll to the left at low height near the end of runway 24L. There were no reports of an abnormal engine sound. At 1314:24, the pilot made a radio call stating 'papa oscar romeo papa oscar romeo MAYDAY MAYDAY MAYDAY'.[2]

The camera footage showed the aircraft's angle of bank increasing and the aircraft descending before colliding with terrain. A camera at a building about 180 m to the south-east of the accident site recorded the engine cowling on the left side opening and closing in the seconds prior to the aircraft's collision with terrain (Figure 3).

[2] MAYDAY: an internationally recognised radio call announcing a distress condition where an aircraft or its occupants are being threatened by serious and/or imminent danger and the flight crew require immediate assistance.

Figure 3: VH-POR showing engine cowl open

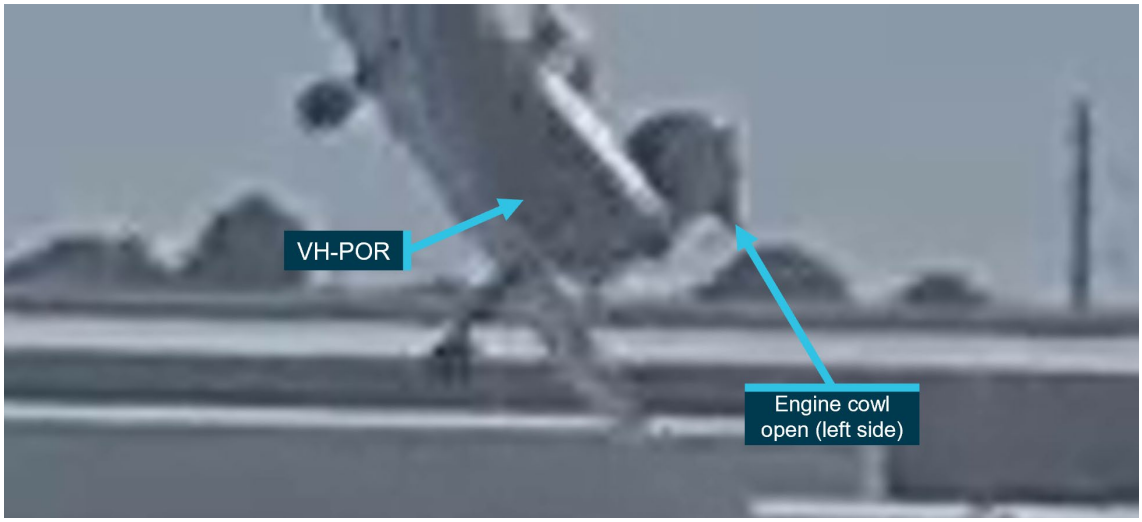


Image source: Supplied, annotated by the ATSB.

An instructor with a student pilot who had just landed recalled seeing the aircraft's engine cowl open and the collision with terrain. The instructor and student taxied to a position adjacent to the accident site to provide assistance. The pilot was initially treated on-site by Royal Flying Doctor Service personnel before being transported to hospital. Later, the pilot succumbed to injuries.

Context

Pilot information

The pilot was issued a private pilot licence (aeroplanes) by the United Kingdom Civil Aviation Authority in 1977. The pilot was issued with an Australian private pilot licence (aeroplanes) in 1978 and held a current Civil Aviation Safety Regulation Part 61 Private Pilot (Aeroplane) Licence. The pilot held a valid class 2 civil aviation medical certificate with no restrictions and was required to wear vision correction when flying.

The pilot had no reported significant medical conditions. Toxicology and post-mortem examination reports were not available at the time of publication.

At the time of the accident, the pilot had accumulated about 330 hours total aeronautical experience.

Aircraft information

General information

The DHC-1 MK 22 Chipmunk is a 2 seat, low-wing aircraft constructed predominantly from light aluminium alloy with fabric covered wings and control surfaces. The aircraft was designed for ab initio military flight training.

VH-POR was manufactured in Portugal under licence by Oficinas Gerais de Material Aeronautico (OGMA) in 1958. It was powered by a 4 cylinder de Havilland Gipsy Major 10 MK 2 engine driving a fixed-pitch wooden propeller. It was first registered in Australia in 2010 and the accident pilot had been the registration holder since 2018.

A periodic inspection and minor maintenance tasks were carried out on 22 March 2024. At the time of the accident, the aircraft had accumulated 2,082 flying hours.

Engine cowl

Access to the engine is via a cowling door on either side. The cowl doors are hinged at the top and fastened by 2 latches at the bottom of each cowl. The latches are attached to the lower engine cowl and when in the vertical position pass through holes on the cowling doors (Figure 4, left). To fasten the cowl, the latches are pulled outboard, further compressing a pre-compressed spring, and turned clockwise (1/4 turn) to the horizontal position. Releasing the latch fastens the cowl and the latches are held in place by the spring and prevented from turning counterclockwise by a tab (Figure 4, right).

Figure 4: DHC-1 Chipmunk cowl latch detail (exemplar aircraft)

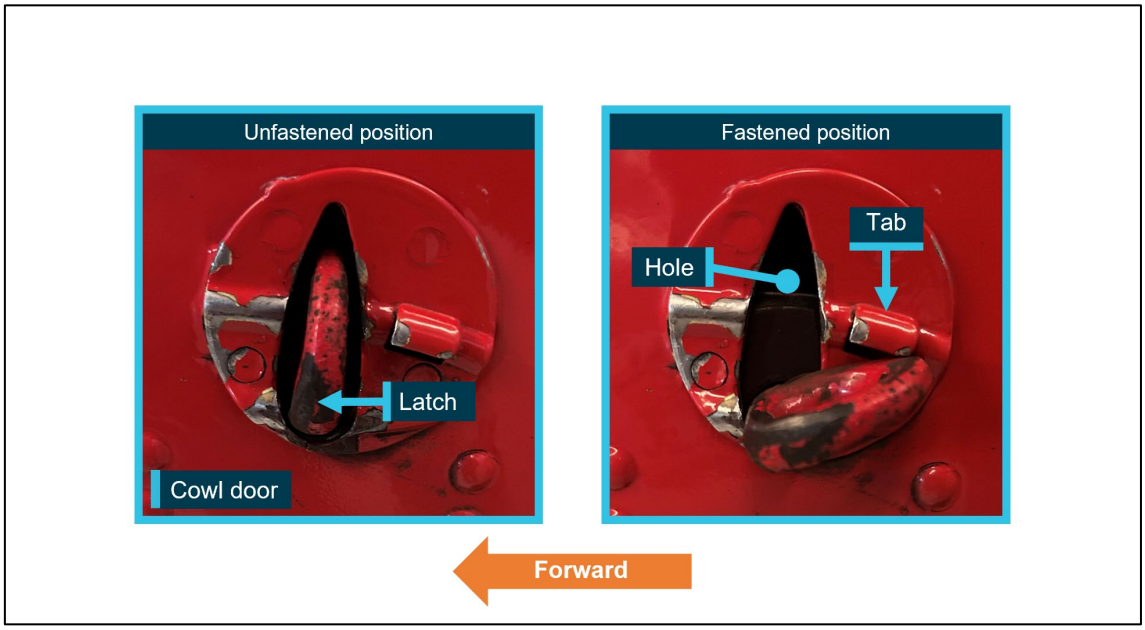


Image source: Supplied, annotated by the ATSB.

Wreckage and impact information

The wreckage had been relocated to a secure hangar on Jandakot Airport prior to the arrival of ATSB investigators. Further, the accident site had been repatriated due to a significant fuel spill after the wreckage was relocated. Therefore, a detailed survey of the impact location was not possible. However, in addition to the 2 cameras showing the flight and accident, the ATSB obtained photographs of the site provided by first responders.

The ATSB examined the wreckage in the hangar. All major aircraft components were accounted for, and the propeller showed evidence that the engine was running at impact. Flight control continuity was established, and the wing flaps were assessed to have likely been in the retracted position at the time of impact.

Damage to the engine cowl latches was indicative of the latches being correctly fastened on the right side and unfastened on the left.

Further investigation

To date, the ATSB has:

- examined the wreckage
- recovered aircraft components associated with occupant restraints
- interviewed relevant parties and eyewitnesses
- collected aircraft, pilot, airport, and operator documentation
- conducted preliminary analysis of video recordings and ATC transmissions.

The investigation is continuing and will include further:

- examination of the aircraft components
- review of aircraft and pilot documentation
- analysis of the aircraft flight path, and impact forces.

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.

General details

Occurrence details

Date and time:	26 April 2024 1314 Western Australia Standard Time	
Occurrence class:	Accident	
Occurrence categories:	Collision with terrain	
Location:	Jandakot Aerodrome	
	Latitude: 32.0975° S	Longitude: 115.8811° E

Aircraft details

Manufacturer and model:	OFICINAS GERAIS DE MATERIAL AERONAUTICO DHC-1 MK 22	
Registration:	VH-POR	
Serial number:	OGMA 44	
Type of operation:	Part 91 General operating and flight rules-Other	
Activity:	General aviation / Recreational-Sport and pleasure flying-Pleasure and personal transport	
Departure:	Jandakot Aerodrome, WA	
Destination:	Jandakot Aerodrome, WA	
Persons on board:	Crew – 1	Passengers – 0
Injuries:	Crew – 1 (fatal)	Passengers – 0
Aircraft damage:	Substantial	

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.