

LIMITED ACCIDENT INVESTIGATION REPORT

Reference Number	CA18/2/3/10084						
Classification	Accident	Date	24 November 2021	Time	1415Z		
Type of Operation	Private (Part 94)						
Location							
Place of Departure	Mawala Lodge Airstrip, Limpopo Province		Place of Intended Landing	Mawala Lodge Airstrip, Limpopo Province			
Place of Accident	On a private farm approximately 3km from Mawala Lodge, Limpopo Province						
GPS Co-ordinates	Latitude	24°59'17" S	Longitude	027°18'33" E	Elevation	3464.6ft	
Aircraft Information							
Registration	ZU-APS						
Model/Make	Thunderbird MKII (Serial Number: TDE53)						
Damage to Aircraft	Destroyed		Total Aircraft Hours	479			
Pilot-in-command							
Licence Valid	Yes		Gender	Male		Age	63
Licence Type	Private Pilot Licence (PPL) Aeroplane						
Total Hours on Type	8		Total Flying Hours	839			
People On-board	1+0	Injuries	1	Fatalities	0	Other (On ground)	0
What Happened							
<p>On Wednesday afternoon, 24 November 2021 at approximately 1415Z, a pilot on-board a Thunderbird MKII aircraft with registration ZU-APS took off on a private flight from Mawala Lodge Airstrip Runway (RWY) 16 in Limpopo province with the intention to perform two touch-and-go landings on the same runway.</p> <p>The pilot reported that after take-off at approximately 500 feet (ft) above ground level (AGL), the aircraft lost lift and drifted to the left. Whilst in descent, the pilot scanned the surroundings for a suitable area to execute a forced landing; however, there was none ahead of him or on his flight path. Thus, the pilot had no choice but to execute a forced landing; the aircraft collided with the treetops and crashed at a game farm next to the R510 road which was 3 kilometres (km) from the threshold of RWY 16.</p> <p>The aircraft impacted the ground with the nose gear first during the accident sequence. After impact, the aircraft came to a halt with its main landing gear and with the wings/canopy touching the ground (see Figure 2). The aircraft was destroyed. The pilot sustained serious injuries during the accident. The pilot used his mobile phone to call his son, who was at Mawala Lodge, for assistance. The son</p>							

drove to the accident scene and transported the pilot to a nearby hospital. Later, the pilot was airlifted to another hospital due to his serious injuries.

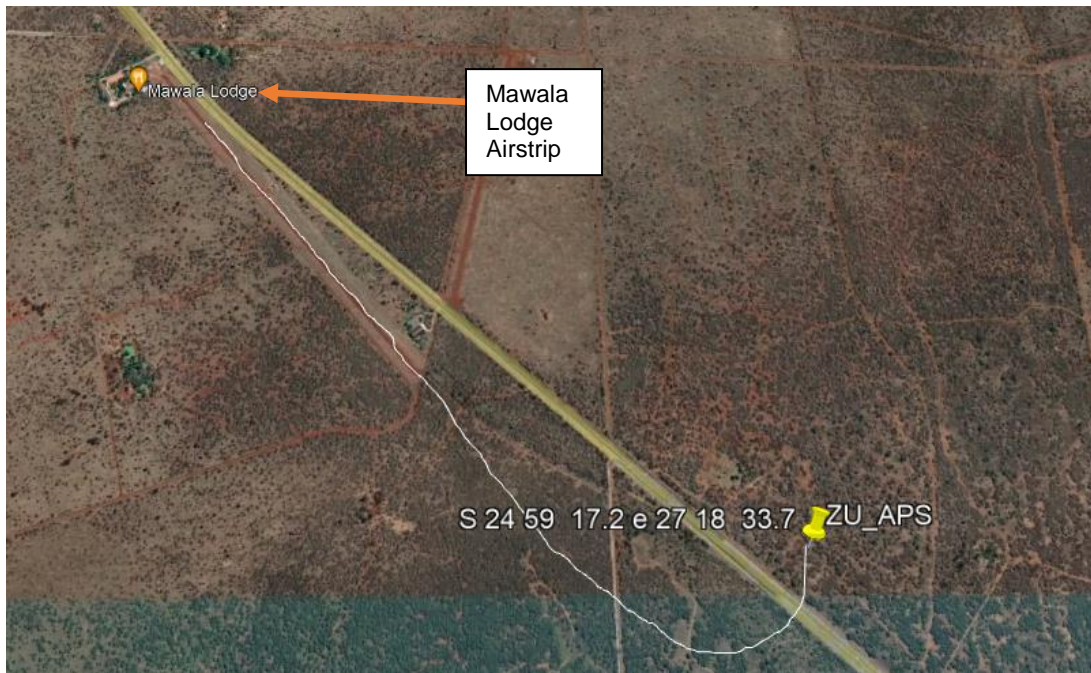


Figure 1: Location of the accident site in relation to Mawala Lodge and the flight path.
(Source: Google Earth)



Figure 2: The aircraft post-accident.

What was found:

- During post-accident interview with the pilot, he stated that he had switched the engine off before impact after he could not regain control of the aircraft to avoid more injuries which could have resulted from the propeller colliding with the trees.

During the on-site investigation, the investigating team found that the propeller turned freely by hand. Fuel was found in the carburettor bowls and in the fuel lines that feed fuel to the engine. The fuel tanks had approximately 10 litres each. A fuel sample was taken and there was no evidence of fuel contamination that could have led to the accident.

- The following information was extracted from the South African Weather Service report:

Weather chart valid for 24 November 2021 at 1500Z: the forecast showed partly cloudy weather condition at the time and place of the accident, and there was turbulence between FL050 and FL140 forecasted. Wind direction: 03004kts; temperature: 29°C; dew point 3°C; QNH: 1013 hPa.

- According to the aircraft's maintenance records, the last annual inspection was carried out on 2 October 2020 at 476.2 airframe hours. The Certificate of Release to Service (CRS) issued after the annual inspection stated that the next annual inspection was due on 2 October 2021 or at 489 hours. The aircraft had accumulated an additional 2.8 airframe hours since the last inspection. Scrutiny into the airframe/engine logbooks and flight folio showed no records of maintenance carried out on the aircraft (considering the day of the occurrence which was 24 November 2021). This meant that although the aircraft only accumulated 2.8 hours following its previous inspection, the aircraft's annual maintenance inspection was 54 days overdue.
- According to the pilot's logbook and questionnaire, the pilot had flown a total of 839 hours, of which 8 hours were on the aircraft type. The last time the pilot flew an aircraft was on 22 November 2021, two days prior to the date of the accident flight.

Probable cause:

The aircraft lost lift caused by turbulent weather condition at approximately 500ft AGL, which led to an unsuccessful forced landing.

Safety Action/s

None.

Safety Message

None.

Purpose of the Investigation

*In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011, this report was compiled in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and **not to apportion blame or liability.***

About this Report

Decisions regarding whether to investigate, 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, no investigation has been conducted, and the Accident and Incident Investigations Division (AIID) has relied on the information submitted by the affected person/s and organisation/s to compile this brief report. The report has been compiled using information supplied in the initial notification, as well as follow-up information to bring awareness of potential safety issues to the

industry in respect of this occurrence, as well as possible safety action/s that the industry might want to consider in preventing a recurrence of a similar accident.

This report provides an opportunity to share safety message/s in the absence of an investigation.

All times given in this report are Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.

Disclaimer

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This report is issued by:

**Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**