

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10409						
Classification	Accident	Date	13 January 2024		Time	0627Z	
Type of Operation	Private (Part 94)						
Location							
Place of Departure	Riverside Private Airfield, Malalane, Mpumalanga Province			Place of Intended Landing	Riverside Private Airfield, Malalane, Mpumalanga Province		
Place of Occurrence	Sugarcane plantation in Malalane, Mpumalanga Province						
GPS Co-ordinates	Latitude	25°31'39.5" S	Longitude	031°23'23.3" E	Elevation	1043 ft	
Aircraft Information							
Registration	ZU-IWX						
Make; Model; S/N	Bat Hawk (Serial Number: 0102)						
Damage to Aircraft	Substantial			Total Aircraft Hours	319.1		
Pilot-in-command							
Licence Type	Private Pilot Licence (PPL)		Gender	Male		Age	53
Licence Valid	Yes	Total Hours	777.7		Total Hours on Type	777.7	
Total Hours 30 Days	4.3		Total Flying on Type Past 90 Days	58.8			
People On-board	1+1	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
<p>On Saturday morning, 13 January 2024 at 0736Z, a pilot and a passenger on-board a Bat Hawk microlight with registration ZU-IWX took off on a surveillance flight from Riverside Airfield in Mpumalanga province to Malalane in the same province. The pair intended to return to the departure airfield afterwards. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>The microlight had 60 litres of fuel with 4 hours endurance. After the microlight was airborne, the pilot routed west along the southern boundary of the Kruger National Park and followed the Crocodile River. He then noticed an elephant beyond the boundary of Kruger National Park and was concerned if it was with a herd or if it was just a lone elephant. The pilot stated that when he turned overhead, he increased power and levelled the wings. He then turned to the right with sufficient height over the trees but noticed that the microlight was losing height quickly. He then increased the throttle to maximum, levelled the wings straight westly, lowered the nose to increase speed and pulled up. However, the microlight continued to lose height and it crashed in the sugarcane field. The distance from the point of contact with the ground to the point where the microlight stopped is 16 metres.</p>							

The undercarriage frame and the propellers were substantially damaged. The two occupants were unharmed.

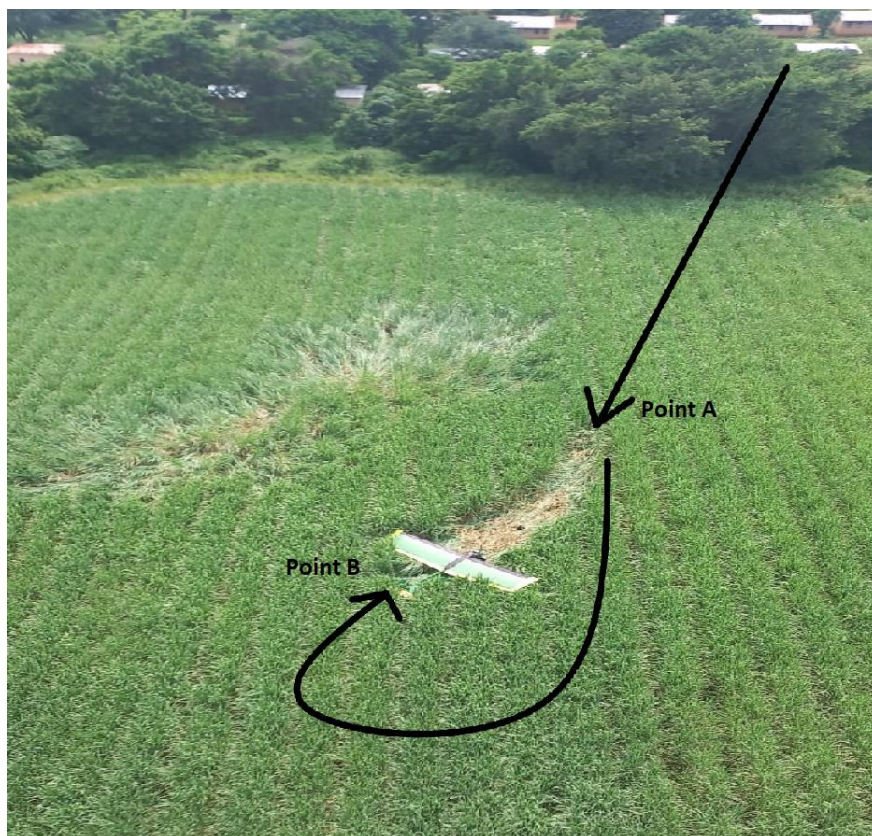


Figure 1: Point A is the initial impact. The distance between points A and B is 16 metres. (Source: Operator)



Figure 2: The microlight came to rest facing the landing direction. (Source: Operator)



Figure 3: The damaged airframe and propeller blade. (Source: Operator)

Findings

1. The pilot was reissued a Private Pilot Licence (PPL) on 9 September 2022 with an expiry date of 30 September 2024. The pilot's Class 2 medical certificate was issued on 9 October 2023 with an expiry date of 3 November 2024 with limitations.
2. The microlight's last 100-hour inspection was conducted on 21 November 2023 at 306.0 Tachometer hours, after which a Certificate of Release to Service (CRS) was issued with an expiry date of 20 November 2024 or at 406.0 Tachometer hours, whichever comes first.
3. The Authority to Fly (ATF) was originally issued on 15 July 2022. The ATF was reissued on 21 July 2023 with an expiry date of 14 July 2024.

4. The Certificate of Registration (C of R) was issued to the owner of the microlight on 29 June 2022.
5. The approved person (AP) who maintained the microlight had an AP certificate that was valid from 7 February 2023 to 6 February 2025. Post-accident, the microlight was recovered, and an assessment was conducted. The findings were as follows:
 - *The propeller showed signs that it broke at high-speed rotation, an indication that the engine was spinning at the time of the accident.*
 - *The slightly bent axles and cracked undercarriage indicated high vertical speed.*
 - *The microlight still contained fuel; the engine and all mechanical systems were in good condition.*
6. The pilot stated that he reduced power when he noticed an elephant. At a later stage when he increased power, the microlight responded but due to the obstacle (trees) on its flight path, the pilot pulled back the control column to clear the obstacle, but the microlight lost forward speed.
7. It is likely that the microlight stalled whilst the pilot attempted to clear the trees. Because the pilot did not have sufficient height to recover the microlight, it crashed in the sugarcane field.

Probable Cause(s)

The pilot reduced power during a low-level cruise and stalled the microlight; when he attempted to clear the obstacle in the flight path, the microlight lost height and crashed in the sugarcane field.

Contributing Factor(s)

Flying low and slow to clear an obstacle.

Safety Action(s)

None.

Safety Message and/or Safety Recommendation/s

None.

About this Report

The decision to conduct a limited investigation is based on factors including whether the cause is known and the evidence supporting the cause is clear, the level of safety benefit likely to be obtained from an investigation and that will determine the scope of an investigation. For this occurrence, a limited 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 limited report. The report has been compiled using information supplied in the initial notification, as well as from follow-up desk top enquiries 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 occurrence.

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.

Purpose

In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011 and ICAO Annex 13, 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.

Disclaimer

This report is produced without prejudice to the rights of the AIID, which are reserved.

**This report is issued by:
Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**