

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10371					
Classification	Accident	Date	5 October 2023	Time	1008Z	
Type of Operation	Private (Part 94)					
Location						
Place of Departure	Potchefstroom Aerodrome (FAPS), North West Province		Place of Intended Landing	Potchefstroom Aerodrome (FAPS), North West Province		
Place of Occurrence	Open field, southwest of FAPS, North West Province					
GPS Co-ordinates	Latitude	26°41'27.90" S	Longitude	027°02'47.63" E	Elevation	4 562 ft
Aircraft Information						
Registration	ZS-GWN					
Make; Model; S/N	Grob Burkhardt Flugzeugbau; Astir CS 77 (Serial Number: 1746)					
Damage to Aircraft	Substantial		Total Airframe Hours	1 633.9		
Pilot-in-command						
Licence Type	Glider Pilot Licence		Gender	Male		Age 50
Licence Valid	Yes	Total Hours	128.6		Total Hours on Type	128.6
Total Hours 90 Days	11.6		Total Flying on Type Past 90 Days		11.6	
People On-board	1 + 0	Injuries	0	Fatalities	0	Other (on ground) 0
What Happened						
<p>On Thursday morning, 5 October 2023 at 0949Z, a pilot on-board a Grob Astir CS 77 glider with registration ZS-GWN was aerotowed from Potchefstroom Aerodrome (FAPS) in the North West province with the intention to land back at the same aerodrome. 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 pilot was participating in the South African National Gliding Championships in the Club Class. He stated that by the time he was aerotowed, there were already 35 other gliders in the air. He stated that he released from the tug aircraft at a height of 6 257ft in conditions which felt like thermal. He was airborne for 19 minutes but was unsuccessful to thermal and the glider fell out of the gliding range of the aerodrome. The pilot could not find a suitable area for an out landing. He opted to land on an open field (very rocky terrain). During landing, the undercarriage and the right wing were substantially damaged after impacting the rocks. The pilot was not injured. The accident occurred during day light at Global Positioning System (GPS) co-ordinates determined to be 26°41'27.90" South 027°02'47.63" East, at an elevation of 4 562 feet (ft).</p>						

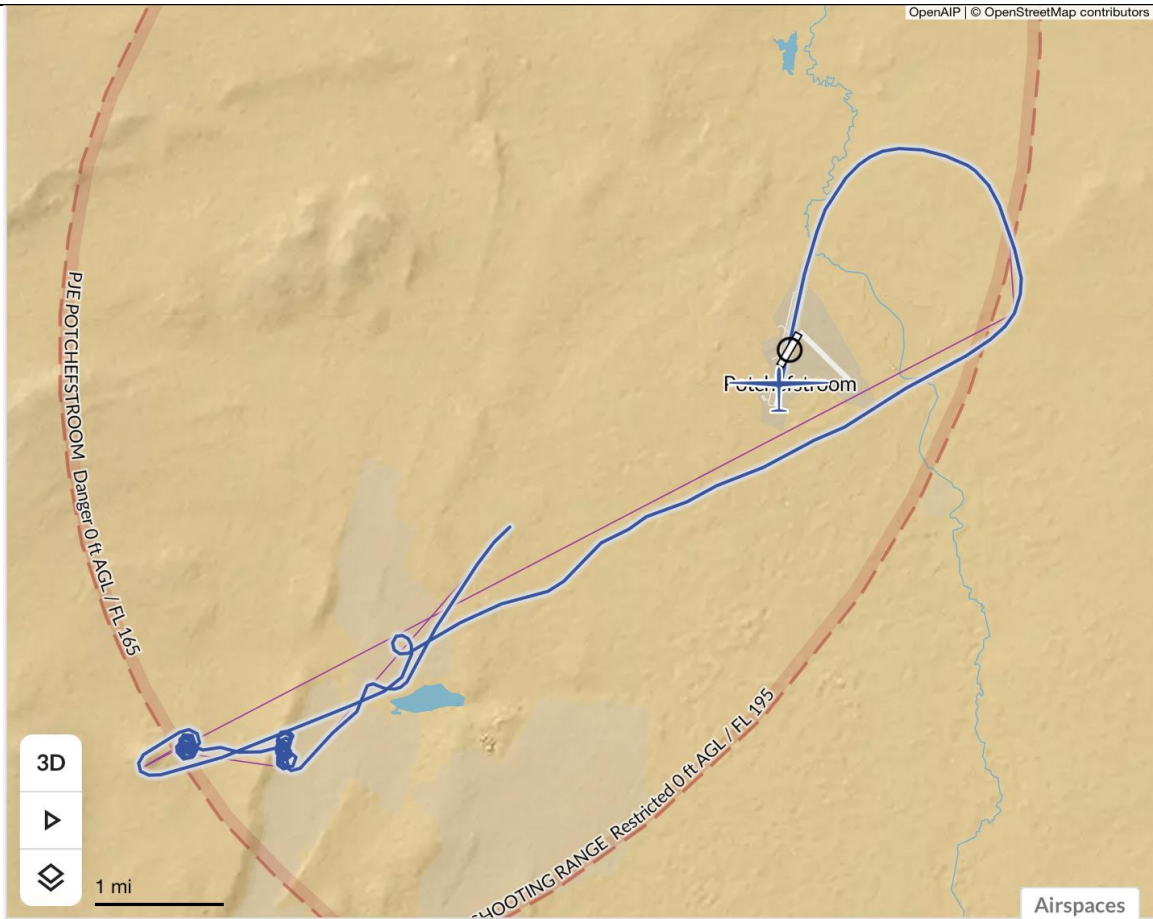


Figure 1: The flight track of the glider. (Source: Pilot)

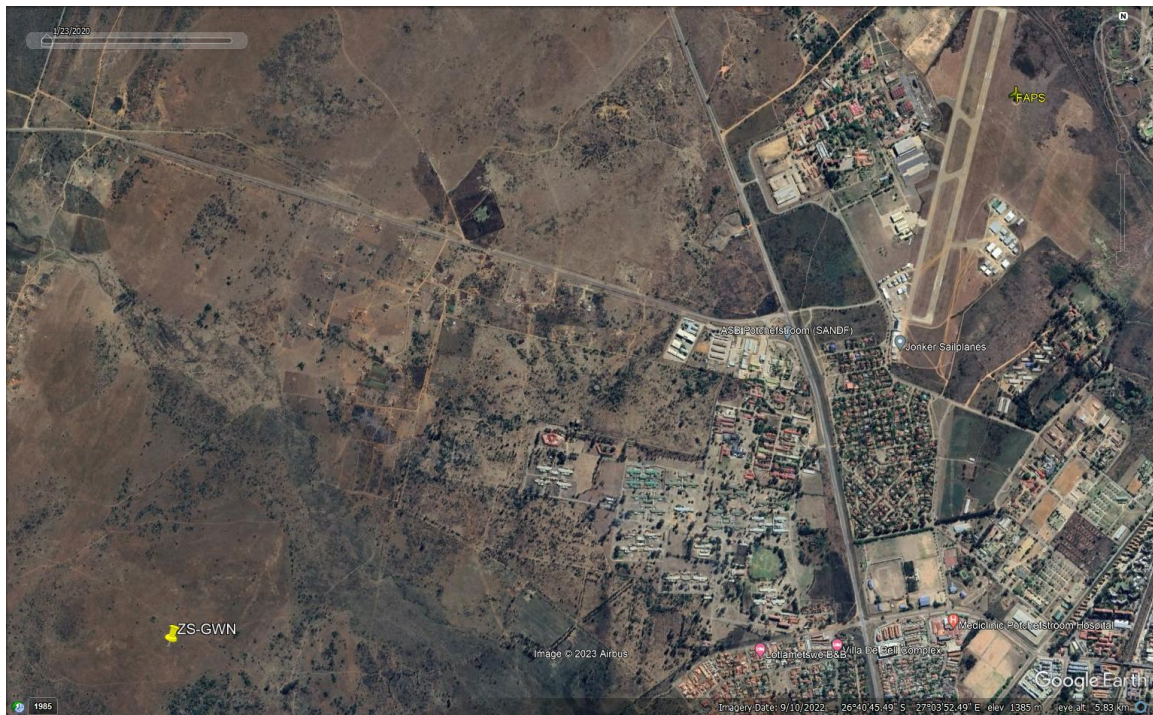


Figure 2: The yellow pin indicates the position of the aircraft. (Source: Google Earth)



Figure 3: The glider as it came to rest. (Source: Pilot)



Figure 4: Damage to the right wing. (Source: Pilot)



Figure 5: A closer view of the lower fuselage showing damage caused by the rocks. (Source: Pilot)

Findings

1. Personnel Information

- 1.1 The pilot had a Glider Pilot Licence (GPL). His licence was initially issued on 26 February 2023 with an expiry date of 25 February 2024. The pilot had flown a total of 128.6 hours on the glider type, according to the pilot questionnaire (form CA 12-03).
- 1.2 The pilot was issued a Class 4 aviation medical certificate on 17 February 2023 with an expiry date of 28 February 2024.
- 1.3 The pilot was appropriately rated and fit to conduct the flight.

2. Aircraft Information

- 2.1 The last annual inspection that was conducted on the glider prior to the accident flight was certified on 22 September 2023 at 1 610.1 airframe hours. Since the inspection, a further 23.8 hours were flown on the glider.
- 2.2 The glider had a valid Authority to Fly (ATF) that was initially issued on 4 November 2020 with an expiry date of 30 November 2023. The glider was airworthy when it was launched for the flight.
- 2.3 The glider's Certificate of Registration (C of R) was issued to the present owner on 17 November 2021.

2.4 The glider was issued a Certificate of Release to Service (CRS) on 22 September 2023 with an expiry date of 22 September 2024.

3. Meteorological Information

3.1 The weather information in the table below was obtained from the pilot questionnaire (form CA 12-03).

Wind Direction	Northerly	Wind Speed	5 knots	Visibility	5000 m
Temperature	32°C	Cloud Cover	Nil	Cloud Base	CAVOK
Dew Point	-4°C	QNH	Unknown		

Probable Cause

The pilot performed an out landing on a rocky terrain which resulted in substantial damage to the glider after failure to obtain sufficient lift to proceed to FAPS to land.

Contributing Factor(s)

None.

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

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