



REPUBLIC OF NAMIBIA

MINISTRY OF WORKS AND TRANSPORT

Directorate of Aircraft Accident and Incident
Investigations

Accident Reference: ACCID/110322/02-06

Aircraft Accident Investigation Final Report

CIRRUS SR22 ZS-PVW

RELEASE DATE: 12/9/2023



Aircraft Accident Report

Runway Excursion at Okahirongo river lodge Airstrip RWY 01

Private Flight

Cirrus SR22-G2, 2006 Aircraft,

ZS-PVW

03rd November, 2022



Source: *Airliners.net*



Introduction

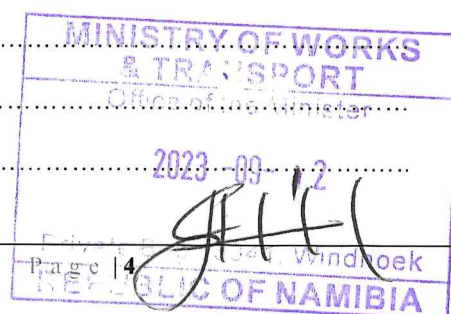
The information contained in this Accident Report is published to inform the aviation industry and the public of the general circumstances of the accident that occurred on the 03rd of November 2022.

The purpose of the Directorate of Aircraft Accidents and Incident investigations (DAII) is to promote aviation safety through the conduct of independent, investigations without prejudice to any judicial or administrative authority consistent with provisions of Namibian Civil Aviation Act, Act 6, of 2016. Which is in-line with ICAO's Annex 13 paragraph 7.1 and 7.2.

The Directorate of Aircraft Accident and Incident Investigations (DAAII) as the authority in charge of the investigations is working in close co - operation with local AMO in conducting further analysis.

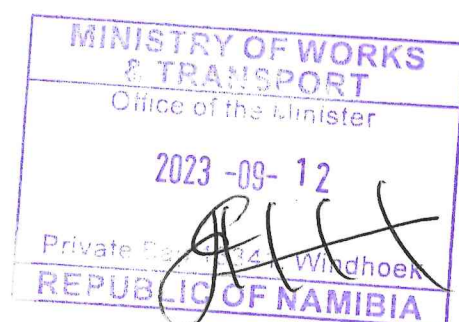



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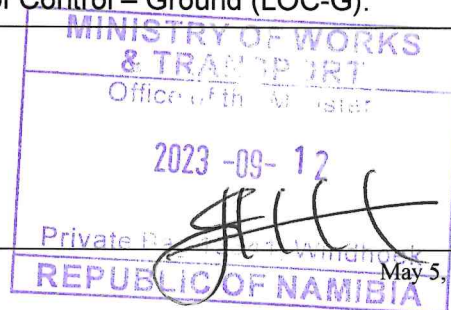


ABBREVIATIONS

AD	-	Airworthiness Directives
AMO	-	Aircraft Maintenance Organization
AME	-	Aircraft Maintenance Engineer
CAVOK	-	Celling and Visibility OK
CVR	-	Cockpit Voice Recorder
DAAII	-	Directorate of Aircraft Accident and Incident Investigation
ELT	-	Emergency Locator Transmitter
FDR	-	Flight Data Recorder
GPS	-	Global Positioning System
ICAO	-	International Civil Aviation Organization
IIC	-	Investigator- In- Charge
LOC-G	-	Loss of Control on Ground
MPI	-	Mandatory Periodic Inspection
NCAA	-	Namibia Civil Aviation Authority
AVBL	-	Available
NAVBL	-	Not Available
NAMCARs	-	Namibian Civil Aviation Regulations
PIC	-	Pilot-In-Command
PPL	-	Private Pilot License
RWY	-	Runway
THR	-	Threshold
TWY	-	Taxiway
UTC	-	Universal Time Co-ordinated



		Ministry of Works and Transport				ACCID/110322/02-06	
		DIRECTORATE OF AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION ACCIDENT REPORT – EXECUTIVE SUMMARY					
Aircraft Registration	ZS-PVW	Date of Accident	03 NOV 2022		Time of Accident	09:33 UTC	
Type of Aircraft	2006 CIRRUS SR22 G2		Type of Operation		Private		
Pilot- In - command License Type		PPL 275501178	Age	19	License Valid		Valid
Pilot-In-command Flying Experience		Total Flying Hours	251,8		Hours on Type		88.8
Last point of departure		Ondangwa Airport (FYOA)					
Next point of intended landing		Okahirongo river lodge Airstrip (FYIC)					
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)							
Okahirongo river lodge Airstrip RWY 01, GPS 17°15'31" S 012°25'51" E							
Meteorological Information		Wind: light and variable, CAVOK, Temperature: 25°C, Air Pressure: NAVBL					
Number of people on board	1+2	No. of people injured	0		No. of people killed	0	
Synopsis							
<p>On the 03rd of November 2022, at around 08H12 UTC a South African registered aircraft, ZS-PVW, Cirrus SR22, got airborne from Ondangwa airport for a private flight to Okahirongo river lodge Airstrip in the Kunene Region. On Board were the pilot and two passengers.</p> <p>The 1 hour and 22 minutes of flight was uneventful. On arrival at Okahirongo river lodge Airstrip the aircraft turned final approach for Runway 01. The approach seemed normal as the pilot aimed his touch down on the first quarter of the Runway. On landing the aircraft ballooned and as soon as the wheels of the aircraft made contact with the gravel runway again the pilot press hard on the brakes, the brakes seemed to have locked and the aircraft skidded. The pilot then released the brakes and applied it slowly again, hoping it will not lock again, however it did not help as the aircraft was approaching the end of Runway and went off the northern end of the Runway. The aircraft came to a full stop approximately 10 meters from the Runway end (Threshold 19). The pilot shut the engine down and evacuated the aircraft together with the two passengers unharmed.</p> <p>The Directorate of Aircraft Accident and Incident Investigation (DAAII) was informed telephonically about the accident by another pilot who also landed at the airstrip. The Minister of Works and Transport Ministry was responsible for the release of the official final accident report.</p> <p>The pilot was a holder of a Private Pilot License. His medical certificate was valid with no restrictions.</p> <p>The last Mandatory Periodic Inspection (MPI) was certified on 17 May 2022 at 860.2 airframe hours. At the time of the accident the aircraft had accumulated a further 77.5 hours since the last MPI was certified.</p>							
Probable Cause:							
Runway excursion.							
Contributing factor (s):							
The Aircraft hit a bump causing it to bounce, resulting in Loss of Control – Ground (LOC-G).							





AIRCRAFT ACCIDENT REPORT

Name of Owner: Etienne Braun
Manufacturer: Cirrus Aircraft
Nationality: South Africa ZS-PVW
Place: Okahirongo river lodge Airstrip GPS 17°15'31" S 012°25'51" E
Date: 03rd November 2022 Time: 09:33UTC (11:33 local time)

All times given in this report are in Co-ordinated Universal Time (UTC).

Disclaimer:

The report is given without prejudice to the rights of the Directorate of Aircraft Accident and Incident Investigations, which are reserved.

Purpose of the Investigations:

In terms of Namibia Civil Aviation Act, Act No 6, of 2016 and ICAO Annex 13, this report was compiled in the interest of the promotion of aviation safety and the reduction of risk of aviation accident and incidents and **not to apportion blame or liability.**

This report contains facts relating to aircraft accidents or incidents which have been determined at the time of issue. The report may therefore be revised should new and substantive facts be made available to the investigator.

1. FACTUAL INFORMATION

1.1. History of Flight

- 1.1.1 On the 03rd of November 2022, at around 08H12 UTC a South African registered, ZS-PVW a Cirrus SR22, aircraft got airborne from Ondangwa airport for a private flight to Okahirongo river lodge Airstrip in the Kunene Region. On Board were the pilot and two passengers.

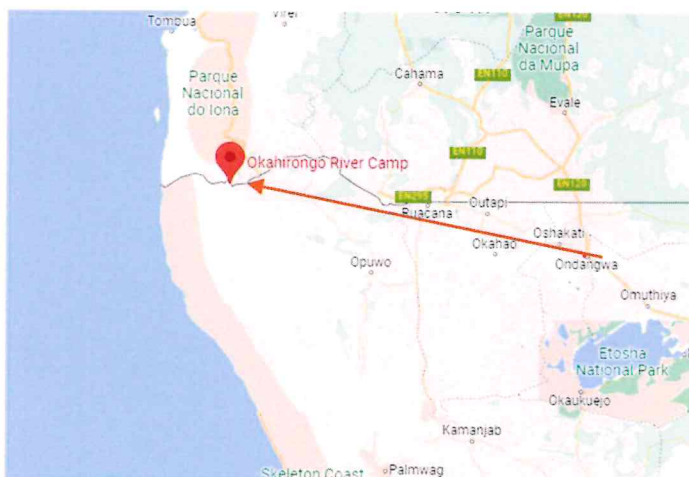


Figure 1: Red Arrow shows the route flown by the Aircraft.



- 1.1.2 The 1 hour and 22 minutes of flight was uneventful. On arrival at Okahirongo river lodge Airstrip the aircraft turned final approach for runway 01. The approach seemed normal as the pilot aimed the touch down on the first quarter of the Runway.
- 1.1.3 On landing the aircraft ballooned and as soon as the wheels of the aircraft made contact with the gravel runway again the pilot press hard on the brakes, the brakes seemed to have locked and the aircraft skidded.
- 1.1.4 The pilot then released the brakes and applied it slowly again, hoping it will not lock again, however it did not help as the aircraft have reached the end of the Runway and it went off the northern end of the Runway.
- 1.1.5 After overrunning the runway, the aircraft rolled down a steep embankment beyond the Northern threshold and came to a full stop approximately 10 meters from the Runway end (Threshold 19). The propeller stroked the ground and rocks when the aircraft went off the Runway.
- 1.1.6 The pilot shut the engine down and evacuated the aircraft together with the two passengers unharmed.

1.2 Injuries to Persons

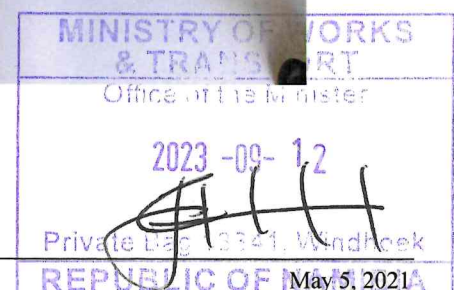
Injuries	Pilot	Crew	Pass.	Other
Fatal	-	-	-	-
Serious	-	-	-	-
Minor	-	-	-	-
None	1	-	2	-

1.3 Damage to Aircraft

- 1.3.1 The Aircraft sustained slight damage, however the propeller, nose gear strut (small crack) and the wheel fairings were damaged during the accident.



Figure 2 and 3: Pictures shows how the propeller was damaged.



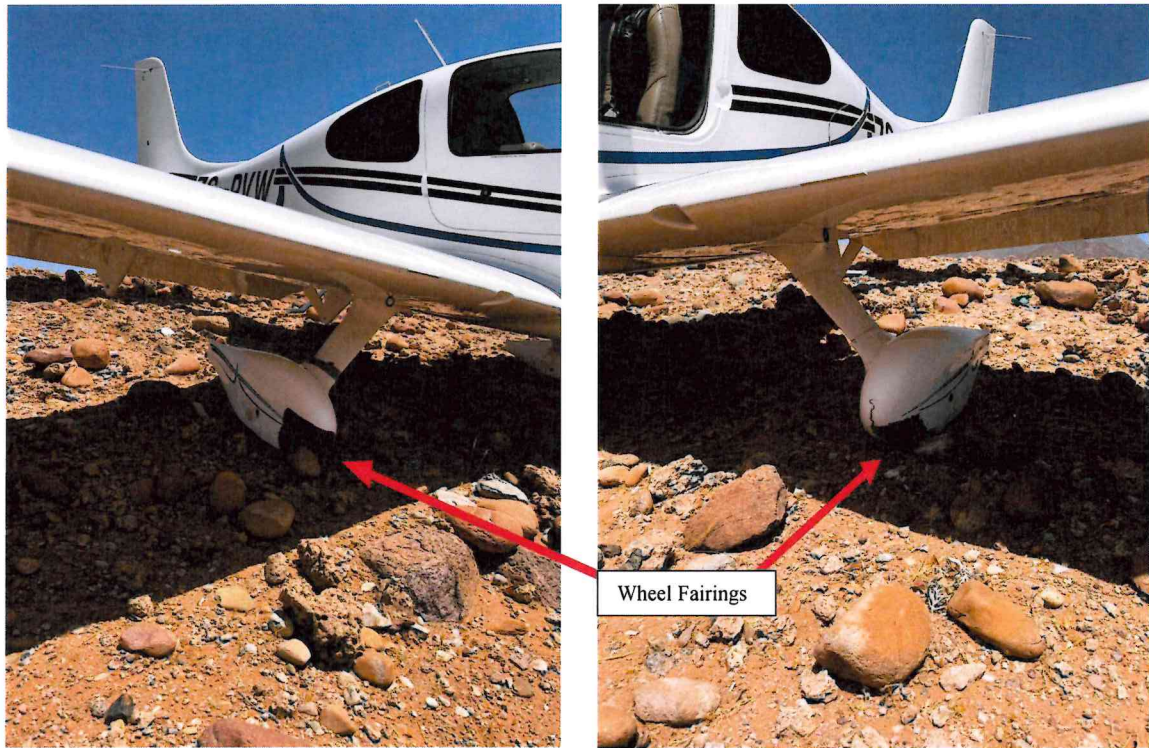


Figure 4 and 5: Pictures shows the damaged wheel fairings.

1.4 Other Damage

1.4.1 There was no other damage

1.5 Personnel Information

1.5.1 Pilot-in-command

Nationality		South African			
Licence No	275501178	Gender	Male	Age	19
Licence valid		Yes	Type Endorsed	Yes	
Ratings		SR22			
Medical Expiry Date		04/06/2024 (PPL)			
Restrictions		None			
Previous Accidents		Unknown			

Flying Experience:

Total Hours	251,8
Total Past 90 Days	68.9
Total on Type Past 90 Days	68.9
Total on Type (SR22)	88.8

*as at 03/11/2022



1.6 Aircraft Information:

The Cirrus SR22 is a Single-engine Reciprocating piston airplane and can carry 4 adults.

Airframe:

Type	CIRRUS SR22-G2	
Serial No.	1818	
Manufacture	CIRRUS AIRCRAFT	
Year of Manufacture	2006	
Total Airframe Hours (At time of Accident)	937.7	
Last MPI (Date & Hours)	17 MAY 2022 airframe hours 860.2	
Hours since Last MPI	77.5	
Operating Categories	Standard	

Engine:

Type	10-550-N
Serial No.	688150
Hours since New	901.0
Hours since Overhaul	N/A

Propeller:

Type	Hartzell
Part no	PHC – J3YF – 1RF (Three Bladed, Constant Speed)
S/N	FP42995

1.7. Meteorological Information

Wind direction and speed	Light and variable	Visibility	9999	Temperature	25°C
Cloud cover	Nil	Cloud base	CAVOK	Dew point	Unknown

1.8. Aids to Navigation

- 1.8.1. The aircraft was equipped with standard navigation equipment as approved by the Regulator for the aircraft type

1.9. Communications.

- 1.9.1. The aircraft was equipped with standard communication equipment as approved by the Regulator for the aircraft type.



1.10 Aerodrome Information

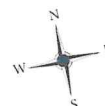
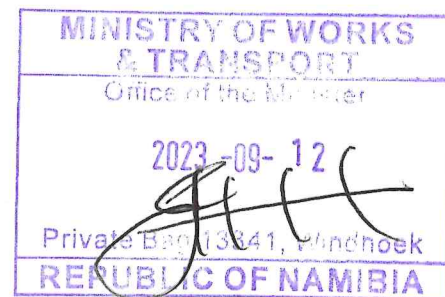
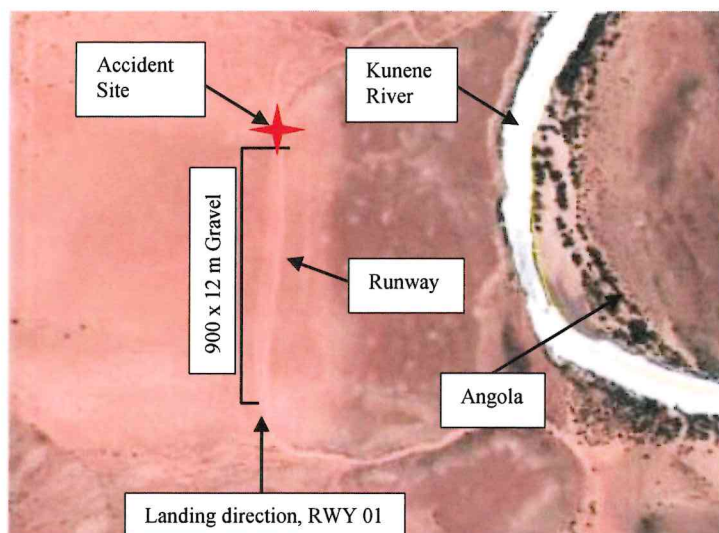


Figure 6: Okahirongo River Lodge Airstrip (Source: Google Earth)

Aerodrome Location	Okahirongo River Lodge, Kunene Region, Namibia
Aerodrome GPS coordinates	17°15'31" S 012°25'51" E
Aerodrome Elevation	910 ft
Runway Designators	01/19
Runway Dimensions	900m X 12m
Runway used	01
Runway surface	Gravel
Aids to navigation	None

Hazards:

RWY has moderate sized rocks. Keep pressure off nose wheel.
Beware of high terrain on the east and west of RWY. Downslope towards the south.
Animals and humans moving freely.
Make sure aircraft is locked.

Notes:

Accessible by C210 (weight restricted) and C208
Airfield is not clearly visible from the air.
RWY clearly marked with tyres and rocks, however due to narrow RWY, these can be hazardous. Slight bumps and ditches
Concrete Run-up pad, good condition
RWY slope up from South. Land from South (RWY 01).
RWY lose gravel, bumpy. NO cellphone reception.

**The information about the airfield was sourced from the lodge and local charter company.*

1.11. Flight Recorders

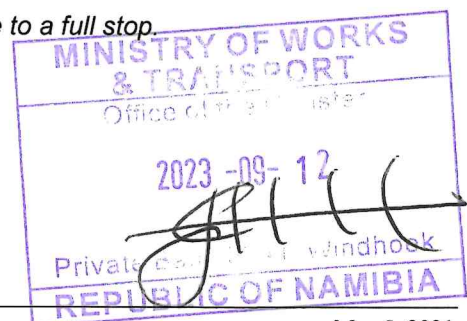
- 1.11.1. The Aircraft was not equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR) nor was it required by the relevant aviation regulations.

1.12 Wreckage distribution and Impact Information

The aircraft remained intact. After overrunning the RWY, the aircraft came to a full stop approximately 10 meters from the end of the runway.



Figure 7, 8 and 9: Pictures showing where the aircraft came to a full stop.



1.13 Medical and Pathological Information

1.13.1 The pilot had a valid medical certificate (Class 2).

There was no evidence that physiological factors or incapacitation affected the performance of the pilot.

1.14 Fire

1.14.1 There was no pre- or post-fire.

1.15 Survival Aspects.

1.15.1 The accident was survivable as the aircraft remained intact and all the occupants were secured by the aircraft-equipped safety harnesses.

1.16 Tests and Research.

1.16.1 Not applicable

1.17 Organizational and Management Information.

1.17.1 The aircraft was flown for private use. The owner of the aircraft was one of the two passengers on board the aircraft.

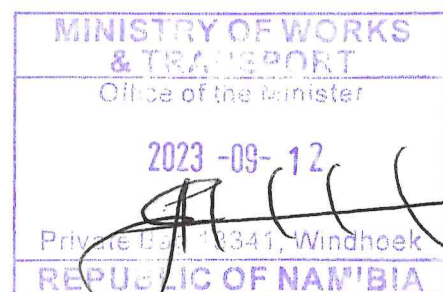
1.17.2 The aircraft had a valid Overflight and Landing Authorization (No: CJ31/2209/2022) to operate in Namibia. The planed route was Upington (FAUP) – Keetmanshoop (FYKT) – **Ondangwa (FYOA) – Okahirongo (FYIC)** – FYOA – Okonjima (FYKN) – Windhoek Eros (FYWE) – FAUP. The Permit was valid from the 01st of November 2022 to the 07th of November 2022.

1.18 Additional Information

1.18.1 None.

1.19 Useful or Effective Investigation Techniques

1.19.1 Not applicable



2. ANALYSIS

2.1 During an interview, the pilot informed the investigator-in-charge (IIC) that he sourced information about the airfield from different sources. Information about the airfield highlighted Hazards and had Warnings about the condition of the RWY.

2.2 On landing the aircraft hit a bump and bounced, the sudden bounce most likely startled the pilot and as soon as the wheels made contact with the gravel RWY again he pressed hard on the brakes causing the aircraft to skid, the pilot then released the brakes and applied it slowly again, however there was not enough Runway surface available to complete the landing role safely and the aircraft went off the northern end of the Runway.

It is the view of the IIC that the bump and the fact that it was the first time for the PIC to land at Okahirongo Airstrip, which is classified by most pilots as a difficult RWY, contributed to the accident.

3. CONCLUSION

3.1 Findings

- 3.1.1 The maintenance records indicated that the aircraft was certified, equipped and maintained in accordance with existing regulations and approved procedures.
- 3.1.2 The pilot had a valid Private Pilot License and a valid medical certificate.

3.2 Probable Cause

- 3.2.1 Runway excursion.

3.3 Contributing factors

- 3.3.1 Loss of Control – Ground (LOC-G), after hitting a bump on the Runway.

4. Safety Recommendations

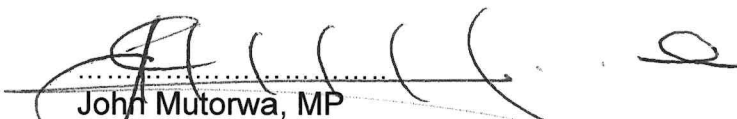
- 4.1 None



Ben C. A. Engelbrecht
Investigator-in-Charge

Date: 04 September 2023

Released by:



John Mutorwa, MP
MINISTER: MINISTRY OF WORKS AND TRANSPORT

Date: 12/9/2023

