

PRELIMINARY ACCIDENT REPORT

Accident and Incident Investigations Division

Accident
- Preliminary Report -
AIID Ref No: CA18/2/3/10556



Figure 1: File picture of the aircraft. (Source: Pilot)

Description:

On Saturday morning, 1 March 2025, a pilot and a passenger on-board a Sling 2 aircraft with registration ZU-SIG took off from Worcester Airfield (FAWC) in Western Cape province with the intention to land back at the same airfield. The pilot reported that before departure from FAWC, he conducted the pre-flight checks and no anomalies were found. Upon his return from the general flying area whilst on base turn before turning final approach for landing on Runway 15 (RWY 15), he noticed a distinct smell of burnt electrical wires that was emanating from the cockpit. As he turned the aircraft for final approach RWY 15, he selected 20 degrees flaps whilst at approximately 300 feet (ft) above ground level (AGL). The aircraft electrical system failed, followed by the engine stoppage.

Occurrence Details

Reference Number	: CA18/2/3/10556
Occurrence Category	: Category 2
Type of Operation	: Private (Part 94)
Name of Operator	: Worcester Flying Club
Aircraft Registration	: ZU-SIG
Aircraft Make and Model	: Sling 2
Nationality	: South African
Registration Marks	: ZU-SIG
Place	: 400 metres from Runway 15 at Worcester Airfield (FAWC)
Date and Time	: 1 March 2025 at 0715Z
Injuries	: Minor
Damage	: Substantial

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.

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.

Investigation Process

The Accident and Incident Investigations Division (AIID) of the South African Civil Aviation Authority (SACAA) was notified of the occurrence involving a Sling 2 aircraft near Worcester Airfield in Western Cape province on 1 March 2025. The occurrence was classified as an accident according to the CAR 2011 Part 12 and the International Civil Aviation Organisation (ICAO) STD Annex 13 definitions.

The AIID has appointed an investigator-in-charge who was dispatched to the accident site to commence with the full investigation. Notifications were sent to the State of Registry and Operator in accordance with the CAR 2011 Part 12 and the ICAO Annex 13 Chapter 4. The States did not appoint an accredited representative and/or advisor. The AIID will lead the investigation and issue the final report of this accident in accordance with the CAR 2011 Part 12 and the ICAO Annex 13.

The information contained in this preliminary report is derived from the information gathered during the on-going investigation into the occurrence. Later, an interim or final report may contain altered information in case new evidence is found during the on-going investigation that requires changes to the information depicted in this report.

The AIID reports are made available to the public at:

<https://www.caa.co.za/industry-information/accidents-and-incidents/>

Notes:

1. *Whenever the following words are mentioned in this report, they shall mean the following:*
Accident — this investigated accident
Aircraft — the Sling 2 involved in this accident
Investigation — the investigation into the circumstances of this accident
Pilot — the pilot involved in this accident
Report — this accident report

- 2. Photos and figures used in this report were taken from various sources and may have been adjusted from the original for the sole purpose of improving clarity of the report. Modifications to images used in this report were limited to cropping, magnification, file compression; or enhancement of colour, brightness, contrast; or addition of text boxes, arrows, or lines.*

Disclaimer

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

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Abbreviation	Description
°	Degrees
°C	Degrees Celsius
ACCID	Accident
AIID	Accident and Incident Investigations Division
AP	Approved Person
ATF	Authority-to-fly
CAVOK	Cloud and Visibility OK
C of R	Certificate of Registration
CPL	Commercial Pilot Licence
CRS	Certificate of Release to Service
FAWC	Worcester Airfield
ft	Feet
GPS	Global Positioning System
hPa	Hectopascal
kt	Knots
m	Metres
METAR	Meteorological Aerodrome Report
MHz	Megahertz
nm	Nautical Miles
RWY	Runway
SACAA	South African Civil Aviation Authority
SAWS	South African Weather Service
VMC	Visual Meteorological Conditions
QNH	Altitude Above Mean Sea Level
Z	Zulu (Term for Universal Co-ordinated Time - Zero Hours Greenwich)

1. FACTUAL INFORMATION

1.1. History of Flight

- 1.1.1. On Saturday morning, 1 March 2025, a pilot and a passenger on-board a Sling 2 aircraft with registration ZU-SIG took off from Worcester Airfield (FAWC) to the general flying area in Western Cape province with the intention to land back at the same airfield. The flight was conducted under visual meteorological conditions (VMC) and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011 as amended.
- 1.1.2. The pilot reported that before departure from FAWC, he conducted the pre-flight checks and no anomalies were found. Upon his return from the general flying area whilst on base turn before turning final approach for landing on Runway 15 (RWY 15), he noticed a distinct smell of burnt electrical wires that was emanating from the cockpit. As he turned the aircraft for final approach RWY 15, he selected 20 degrees flaps whilst at approximately 300 feet (ft) above ground level (AGL). The aircraft electrical system failed, followed by engine stoppage. The pilot attempted to restart the engine but was unsuccessful. He deduced that the aircraft would not reach the runway, and he elected to execute a forced landing on a bushy terrain. *The aircraft's speed was 72 knots at the time the forced landing was executed.* During the landing roll, the nose gear impacted the shrubs, and the aircraft nosed over.
- 1.1.3. Both occupants disembarked from the aircraft; they sustained minor injuries. The aircraft's nose gear, propeller, fuselage, left wing and vertical stabiliser were damaged, therefore, rendering the aircraft substantially damaged.
- 1.1.4. The accident occurred approximately 400m from RWY 15 at FAWC at Global Positioning System (GPS) co-ordinates determined to be 33° 39' 06.7" South 019° 24' 16.1" East, at an elevation of 672ft.



Figure 2: The yellow pin indicates the accident site. (Google Earth)

1.2. Injuries to Persons

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

Note: Other means people on the ground.

1.3. Damage to Aircraft

1.3.1. The aircraft sustained substantial damage to the nose gear, propeller, fuselage, left wing and vertical stabiliser.



Figure 3: The aircraft in an inverted position.

1.4. Other Damage

1.4.1. None.

1.5. Personnel Information

Nationality	South African	Gender	Male	Age	37
Licence Type	Commercial Pilot Licence (CPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instrument, Grade 2 Instructor				
Medical Expiry Date	30 April 2025				
Restrictions	None				
Previous Accidents	None				

Note: Previous accidents refer to past accidents the pilot was involved in, when relevant to this accident.

Flying Experience:

Total Hours	3500
Total Past 24 Hours	2.0
Total Past 7 Days	4.6
Total Past 90 Days	90
Total on Type Past 90 Days	45
Total on Type	45

1.5.1. The pilot had a Commercial Pilot Licence (CPL) that was initially issued on 9 September 2010. The licence was renewed on 6 June 2024 with an expiry date of 30 April 2025.

1.5.2. The pilot had a Class 1 aviation medical certificate that was issued on 26 April 2024 with an expiry date of 30 April 2025 with no medical restrictions.

1.6. Aircraft Information

1.6.1. Aircraft Description (Source: Pilot’s Operating Handbook [POH])

The Airplane Factory Sling 2 is a two seat (side-by-side) single engine tricycle undercarriage aluminium aircraft with a conventional low wing design. The aircraft based upon the EASA CS-VLA (Certification Standard Very Light Aircraft) standard, having a maximum all up weight of 700 kg. With only minor to the aircraft and the application of a revised Pilot Operating Handbook the Sling 2 may be made to comply with the requirements of the FAA Light Sport Aircraft (LSA) category according to ASTM Standards F2245, F2279 and F2295. The Sling 2 is intended chiefly for recreational and cross-country flying. It is not intended for aerobatic operation. It is considered to be suitable for use as a trainer.

Airframe:

Manufacturer/Model	J C Potgieter, Sling LSA	
Serial Number	040	
Year of Manufacturer	13 October 2020	
Total Airframe Hours (At Time of Accident)	87.33	
Last Inspection (Date & Hours)	12 November 2024	75.73
Hours Since Last Inspection	11.6	
CRS Issue Date	12 November 2024	
ATF (Issue Date & Expiry Date)	11 December 2024	31 October 2025
C of R (Issue Date) (Present Owner)	20 January 2021	
Type of Fuel Used	Mogas	
Operating Category	Private Part 94	
Previous Accidents	None	

Note: Previous accidents refer to past accidents the aircraft was involved in, when relevant to this accident.

Engine:

Manufacturer/Model	MW FLY
Serial Number	172001
Hours Since New	87.3
Hours Since Overhaul	TBO not yet reached

Propeller:

Manufacturer/Model	Whirlwind
Serial Number	17033
Hours Since New	87.3
Hours Since Overhaul	TBO not yet reached

1.6.2. The aircraft underwent an annual inspection on 12 November 2024 at 75.73 hours.

1.7. Meteorological Information

1.7.1. To be included in the final report.

1.8. Aids to Navigation

1.8.1. The aircraft was equipped with standard navigational equipment as approved by the Regulator (SACAA). There were no records indicating that the navigational equipment was unserviceable prior to the flight.

1.9. Communication

1.9.1. The aircraft was equipped with a standard communication system as approved by the Regulator. There were no recorded defects with the communication system prior to the flight.

1.10. Aerodrome Information

1.10.1. The accident occurred 400m from RWY 15 at FAWC.

Aerodrome Name	Worcester Airfield (FAWC)
Aerodrome Location	Western Cape Province
Aerodrome Status	Unlicensed
Aerodrome GPS coordinates	33°39'06.75" South, 019°24'16.1" East
Aerodrome Elevation	672 ft
Runway Headings	15 / 33
Dimensions of Runway Used	1 524m x 30m
Heading of Runway Used	RWY 15
Surface of Runway Used	Asphalt
Approach Facilities	None
Radio Frequency	124.8 MHz

1.11. Flight Recorders

1.11.1. The aircraft was neither equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR), nor was it required by regulation to be fitted to the aircraft type.

1.12. Wreckage and Impact Information

1.12.1. During final approach for landing on RWY 15 and with the flaps selected to 20 degrees, the electric system failed, followed by engine stoppage. The pilot executed a forced landing on a bushy terrain towards the left side of RWY 15. The aircraft impacted the shrubs with the left wing and the nose wheel, and it nosed over; it was found resting in an inverted position facing south. The canopy, which was damaged on impact, was further damaged as the pilot and the passenger made their way out of the aircraft.



Figure 4: The aircraft after impact.

1.13. Medical and Pathological Information

1.13.1. None.

1.14. Fire

1.14.1. There was no pre- or post-impact fire.

1.15. Survival Aspects

1.15.1. The accident was considered survivable as the pilot and the passenger were restrained by the aircraft safety harnesses. The canopy was damaged during the accident sequence and the pilot further broke the canopy glass to evacuate from the aircraft together with the passenger.

1.16. Tests and Research

1.16.1. To be discussed in the final report.

1.17. Organisational and Management Information

1.17.1. The private flight was conducted under the provisions of Part 94 of the CAR 2011 as amended.

1.17.2. The aircraft was registered to the owner on 20 January 2021.

1.17.3. The aircraft's Authority-to-fly (ATF) Certificate was issued on 11 December 2024 with an expiry date of 31 October 2025.

1.18. Additional Information

1.18.1. To be discussed in the final report.

1.19. Useful or Effective Investigation Techniques

1.19.1. To be discussed in the final report.

2. FINDINGS

2.1. General

From the available evidence, the following preliminary findings were made with respect to this accident. These shall not be read as apportioning blame or liability to any organisation or individual.

To serve the objective of this investigation, the following sections are included in the conclusions heading:

- **Findings** — are statements of all significant conditions, events, or circumstances in this accident. The findings are significant steps in this accident sequence, but they are not always causal or indicate deficiencies.

2.2. Findings

2.2.1. The pilot had a Commercial Pilot Licence (CPL) that was initially issued on 9 September 2010.

2.2.2. The CPL was reissued on 28 April 2024 with an expiry date of 30 April 2025. The aircraft type was endorsed on the pilot's licence and logbook.

2.2.3. The pilot had a Class 1 aviation medical certificate that was issued on 26 April 2024 with an expiry date of 30 April 2025 with no medical restrictions.

2.2.4. The aircraft underwent annual inspection on 12 November 2024 at 75.73 hours after which a Certificate of Release to Service (CRS) was issued with an expiry date of 11 November 2025 or at 175.73 hours, whichever comes first.

3. ON-GOING INVESTIGATION

3.1. The AIID investigation is on-going, and the investigator will look into other aspects of this occurrence which may or may not have safety implications.

4. SAFETY RECOMMENDATIONS

4.1. General

The safety recommendations listed in this report are proposed according to paragraph 6.8 of Annex 13 to the Convention on International Civil Aviation and are based on the conclusions listed in heading 3 of this report. The AIID expects that all safety issues identified by the investigation are addressed by the receiving States and organisations.

4.2. Safety Recommendation/s

4.2.1. None.

5. APPENDICES

5.1. None.

This report is issued by:

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