



AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:		CA18/2/3/10556	
Aircraft Registration	ZU-SIG	Date of Accident	1 March 2025		Time of Accident	0715Z	
Type of Aircraft	Sling 2			Type of Operation	Private (Part 94)		
Pilot-in-command Licence Type	Commercial Pilot Licence (CPL)		Age	37	Licence Valid	Yes	
Pilot-in-command Flying Experience	Total Flying Hours		3 500	Hours on Type	37		
Last Point of Departure	Worcester Airfield, Western Cape Province						
Next Point of Intended Landing	Worcester Airfield, Western Cape Province						
Damage to Aircraft	Substantial						
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)							
On a bush-type terrain approximately 400 metres (m) short of Runway 15, at Global Positioning System position: 33° 39' 06.7" South 019° 24' 16.1" East, at an elevation of 672 feet (ft)							
Meteorological Information	Surface wind:170°/ 07 kt; temperature: 20°C; dew point: 15°C; Visibility: CAVOK						
Number of People On-board	1 + 1	Number of People Injured	2	Number of People Killed	0	Other (On Ground)	0
Synopsis							
<p>On Saturday morning, 1 March 2025, a pilot and a passenger on-board a Sling 2 aircraft with registration ZU-SIG were engaged in a private flight from Worcester Airfield (FAWC) in Western Cape province with the intention to land back at the same airfield.</p> <p>The pilot reported that before departure from FAWC, he conducted the pre-flight checks and no anomalies were found. Thereafter, the aircraft took off to the general flying (GF) area. Upon their return to FAWC whilst on base leg before turning on final approach for landing on Runway 15 (RWY 15), the pilot smelled an electrical burn. As he turned the aircraft for final approach at a speed of 65 knots, he selected 20 degrees flaps; at approximately 300 feet (ft) above ground level (AGL), the engine stopped and the instrument panel screen switched off. The pilot attempted to restart the engine but was unsuccessful. During this time, the aircraft was losing altitude. The pilot deduced that the aircraft would not reach the runway, and he decided to execute a slight left turn towards a field that he had spotted to conduct a forced landing, but the aircraft came short of the field, and it landed on a bush-type terrain approximately 400 metres (m) short of RWY 15. During the landing roll, the left wing contacted the ground, and the nose gear wheel impacted the shrubs. Consequently, the nose gear collapsed, and the aircraft nosed over. The aircraft was substantially damaged. The occupants sustained minor injuries.</p> <p>The investigation revealed that a screw on the circuit breaker panel in the engine compartment came loose during the flight and, due to vibration, it created a short circuit that caused the wire to heat up and burn the insulation.</p>							
Probable Cause/s and/or Contributory Factors							
Unsuccessful forced landing following an electrical failure which caused the engine to stop functioning during base turn for RWY 15.							
Contributory Factors							
Inadequate pre-flight inspection.							
SRP Date	9 December 2025			Publication Date	10 December 2025		

Occurrence Details

Reference Number : CA18/2/3/10556
Occurrence Category : Accident (Category 2)
Type of Operation : Private (Part 94)
Name of Operator : Maria Susanna Potgieter
Aircraft Registration : ZU-SIG
Aircraft Make and Model : Airplane Factory; Sling 2
Nationality : South African
Registration : ZU-SIG
Place : On a bush-type terrain, 400 metres from FAWC Runway 15
Date and Time : 1 March 2025 at 0715Z
Injuries : 2 minor injuries
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) was notified of the occurrence on 1 March 2025 at 0715Z. 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. Notifications were sent to the State of Registry, Operator, Design and Manufacturer 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. An investigator had dispatched to the site for this accident.

Notes:

- 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*
- Photos and figures used in this report were taken from different 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

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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
C of R	Certificate of Registration
CAR	Civil Aviation Regulations
CAVOK	Cloud and Visibility OK
CRS	Certificate of Release to Service
CVR	Cockpit Voice Recorder
FAWC	Worcester Airfield
ft	Feet
GPS	Global Positioning System
hPa	Hectopascal
kt	Knots
m	Metres
METAR	Meteorological Aerodrome Report
MHz	Megahertz
nm	Nautical Miles
NPL	National Pilot Licence
QNH	Altitude Above Mean Sea Level
RWY	Runway
SACAA	South African Civil Aviation Authority
SAWS	South African Weather Service
SCT	Scattered
TBO	Time Before Overhaul
VMC	Visual Meteorological Conditions
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 on a private flight from Worcester Airfield (FAWC) in Western Cape province with the intention to land back at the same airfield. 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.
- 1.1.2. The pilot reported that before departure from FAWC, he conducted the pre-flight checks of the aircraft, and no anomalies were found. The pair then took off to the general flying (GF) area; the flight was uneventful. Upon their return to FAWC whilst on base leg before turning final approach for landing on Runway 15 (RWY 15), he became aware of a light smell of electrical burn. As he turned the aircraft for final approach RWY 15 at a speed of 65 knots, he selected 20 degrees flaps and at approximately 300 feet (ft) above ground level (AGL), the engine stopped and the instrument panel screen switched off. The pilot attempted to restart the engine but was unsuccessful. During this time, the aircraft was losing altitude. The pilot deduced that the aircraft would not reach the runway threshold. He lowered the nose and established the aircraft on a glide slope whilst aiming for a field on the left of the flight path on which to execute a forced landing. The aircraft came short of the intended spot and landed on a bush-type terrain.
- 1.1.3. During the landing roll, the left wing contacted the ground. The nose gear and the left gear broke off which caused the aircraft to skid before the nose dug into the soft ground. The aircraft came to a sudden stop and rotated vertically on its nose for about 3 seconds before it nosed over; the windshield (canopy) shattered on impact. The aircraft's nose gear, propeller, fuselage, left wing and vertical stabiliser were damaged.
- 1.1.4. Both occupants unlatched their harnesses and disembarked from the aircraft; they sustained minor injuries.
- 1.1.5. The accident occurred approximately 400m from RWY 15 threshold 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.

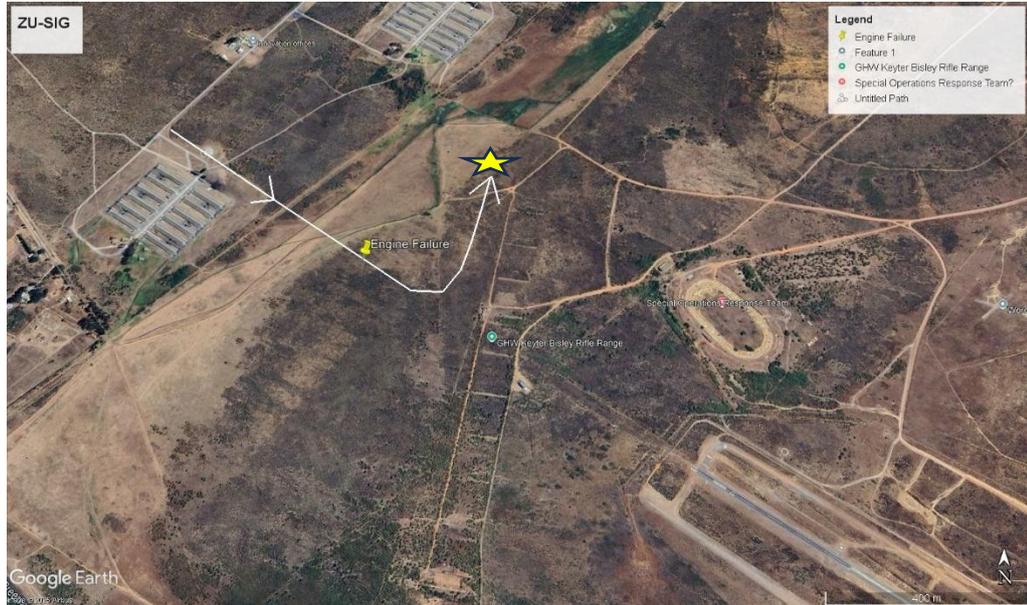


Figure 1: The approximate flight path and the accident site indicated by the yellow star. (Google Earth)

1.2. Injuries to Persons

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

Note: Other means people on the ground.

1.3. Damage to Aircraft

- 1.3.1. The nose gear, propeller, fuselage, left wing and vertical stabiliser were damaged; therefore, the damage was rendered substantial.



Figure 2: The aircraft post-accident.

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	3 500
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 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 2025 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])

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, has a maximum all-up weight of 700 kilograms (kg). With only minor modifications to the aircraft and the application of a revised Pilot's 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 training use.

Airframe:

Manufacturer/Model	J C Potgieter, Sling 2	
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 / MW B25R
Serial Number	172001
Hours Since New	87.3
Hours Since Overhaul	TBO not yet reached

Note: TBO for engine overhaul is 1500 hours or 12 years.

Propeller:

Manufacturer/Model	Whirlwind / AXSPORT 3BL COMP
Serial Number	17033
Hours Since New	87.3
Hours Since Overhaul	TBO not yet reached

Note: TBO for propeller overhaul is 1000 hours or 5 years.

- 1.6.2. The aircraft underwent an annual inspection on 12 November 2024 at 75.73 hours; it had not reached 100 hours.

1.7. Meteorological Information

- 1.7.1. The weather information below was obtained from the pilot via the pilot questionnaire form.

Wind Direction	150°	Wind Speed	10 kts	Visibility	1000m
Temperature	20°C	Cloud Cover	3/8	Cloud Base	9000 ft
Dew Point	Unknown	QNH	Unknown		

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 approximately 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-Megahertz (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. The aircraft nosed over during a forced landing on a bush-type terrain. The windshield shattered and the vertical stabiliser was substantially damaged due to compression forces.



Figure 3: The aircraft as it was found after the accident.



Figure 4: The bent wheel and the broken propeller blade.



Figure 5: The buckled vertical stabiliser.

1.13. Medical and Pathological Information

1.13.1 None.

1.14. Fire

1.14.1. There was no evidence of a 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.

1.16. Tests and Research

- 1.16.1. The aircraft was fitted with a MGL Avionics model electronic flight instrument system (EFIS) with a Secure Digital (SD) card. The EFIS was removed from the aircraft and the last flight data was downloaded. The data on the SD card dated back to 2017; there were no engine anomalies noted on the parameters.
- 1.16.2 The approved person (AP) opened the engine cowlings to inspect the engine compartment; he found that the screw that attaches the electrical wires to the circuit breaker panel was loose and that the wire insulation had melted. The propeller was turned by hand with the intention to remove possible oil on top of the cylinders. The plugs were checked, and no anomalies were found. After the loose screw was tightened, a loaner propeller was fitted to the engine flange to perform a test run. The crankshaft runout was measured and found to be within 0.05mm. The engine ground run was conducted, and it met all parameters as outlined in the aircraft maintenance manual (AMM).

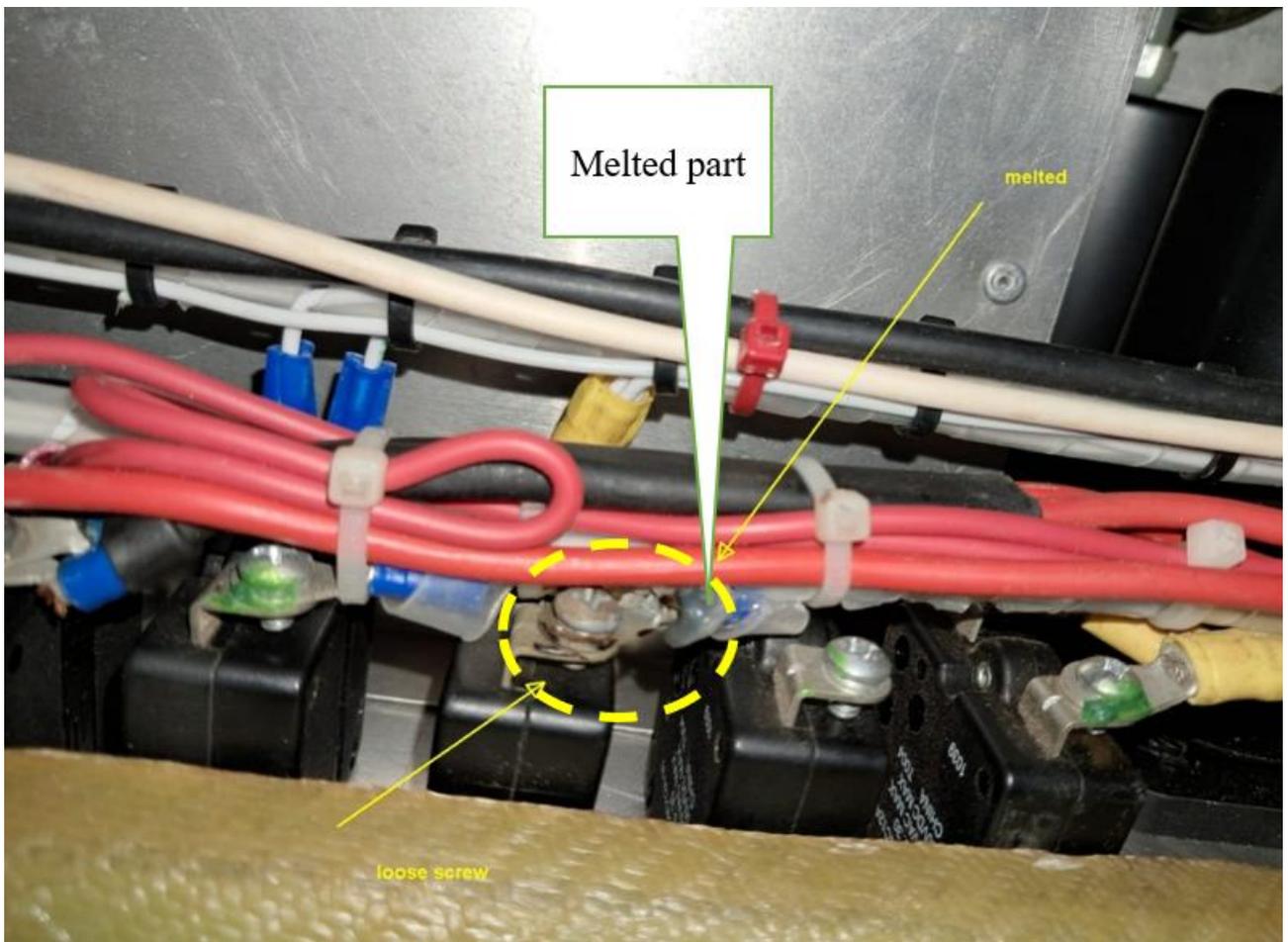


Figure 6: The melted wire and the loose screw.



Figure 7: A still video image of the aircraft inside the hangar during engine run.

1.17. Organisational and Management Information

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

1.17.2. The aircraft was registered to the present 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 The following information is an extract from the Pilot's Operating Handbook (POH):

Engine-off Emergency Landing

Speed - best glide speed (72 KIAS).

Trim - trim for best glide speed.

Landing location - locate most suitable landing location, free of obstacles and preferably into wind.

Safety harness - tighten.

Engine restart - if time permits and if appropriate attempt to identify reason for engine failure and attempt restart.

Propeller (if applicable) - if windmilling, consider feathering to extend glide range (refer to emergency feather procedure below).

Flaps - extend as needed.

Communications - report your location to third parties if possible.

Passenger - brief (Immediately before touchdown)

Fuel selector - shut off
Auxiliary (electric) fuel pump - off
Magnetos / ignition - off
Master switch - off

Electrical Fire In-flight

An electrical fire is often characterised by white smoke and an acrid smell.
Auxiliary fuel pump - on (914 UL: see WARNING below).
Master switch - off (see NOTE below).
Cabin heat - close.
Use the fire extinguisher (if possible).
Ventilate cabin if required / applicable (open air vents on instrument panel).
If fire is extinguished, consider executing a precautionary landing / land as soon as practical. If fire does not extinguish land immediately.

1.19. Useful or Effective Investigation Techniques

1.19.1. None.

2. ANALYSIS

2.1. General

From the available evidence, the following analysis was made with respect to this accident. This shall not be read as apportioning blame or liability to any organisation or individual.

2.2. Analysis

- 2.2.1. The pilot had a CPL that was initially issued on 9 September 2010. 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. 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.
- 2.2.2. The aircraft underwent an annual inspection on 12 November 2024 after which a Certificate of Release to Service (CRS) was issued at 75.7 hours with an expiry date of 11 November 2025 or at 175.7 hours, whichever comes first.
- 2.2.3. The aircraft was fairly new; it had not yet reached 100 hours. The pilot smelled electrical burn during the flight whilst preparing to land.
- 2.2.4. The weather conditions did not contribute to this accident.
- 2.2.5. Whilst the aircraft was on final approach for RWY 15, the electrics failed, followed by engine stoppage. The pilot elected to perform a forced landing on a field to the left of his flight path. Safety standards revealed that during engine failure, the aircraft had to be steered 30 degrees either side of the flight path to avoid potential stall or spin, and low speed. It is likely that the pilot experienced high workload due to multiple system failures, which was likely to cause

situational awareness impairment and decision making.

- 2.2.6. The investigation revealed that the cause of the engine stoppage was attributed to electrical failure which was caused by the circuit breaker that popped due to the short circuit, likely caused by the loose screw that attaches the electrical lug to the circuit breaker.

3. CONCLUSION

3.1. General

From the available evidence, the following findings, causes and contributing factors 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 conclusion 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.
- **Causes** — are actions, omissions, events, conditions, or a combination thereof, which led to this accident.
- **Contributing factors** — are actions, omissions, events, conditions or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident occurring, or would have mitigated the severity of the consequences of the accident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil, or criminal liability.

3.2. Findings

- 3.2.1. The pilot was initially issued a Commercial Pilot Licence (CPL) on 9 September 2010. The licence was reissued on 28 April 2024 with an expiry date of 30 April 2025. The aircraft type was endorsed on his licence and logbook.

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

- 3.2.3. The aircraft underwent an annual inspection on 12 November 2024 after which a Certificate of Release to Service (CRS) was issued at 75.7 hours with an expiry date of 11 November 2025 or at 175.7 hours, whichever comes first.

- 3.2.4. The AP was authorised to conduct maintenance on this type of aircraft.

- 3.2.5. The engine was recovered to the AP for further inspection after the accident.

- 3.2.6. After the engine had stopped in-flight, the pilot elected to turn 90 degrees, which was not a favourable decision, as this could lead to a stall, spin or low-speed situation.

3.2.7. The engine ran without any anomalies after it was tested post-accident.

3.3. Probable Cause/s

3.3.1. Unsuccessful forced landing following the electrical failure which caused an engine stoppage during base turn for Runway 15.

3.4. Contributory Factor/s

3.4.1 None.

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**