



**AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY**

				<b>Reference:</b>		CA18/2/3/10533	
<b>Aircraft Registration</b>	ZU-DWY	<b>Date of Accident</b>	1 December 2024		<b>Time of Accident</b>	1330Z	
<b>Type of Aircraft</b>	Cubby		<b>Type of Operation</b>		Private (Part 94)		
<b>Pilot-in-command Licence Type</b>	National Pilot Licence (NPL)		<b>Age</b>	50	<b>Licence Valid</b>	Yes	
<b>Pilot-in-command Flying Experience</b>	<b>Total Flying Hours</b>		797.7		<b>Hours on Type</b>	Unknown	
<b>Last Point of Departure</b>	Highway Airfield, Western Cape Province						
<b>Next Point of Intended Landing</b>	Highway Airfield, Western Cape Province						
<b>Damage to Aircraft</b>	Substantial						
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>							
Forest View Farm at Global Positioning System (GPS) position: 33° 56' 57.6" South 022° 58' 10.3" East, at an elevation of 790 feet (ft)							
<b>Meteorological Information</b>	Surface wind: 170° / 07 kt; Temperature: 20°C; Dew point: 15°C; Visibility: CAVOK						
<b>Number of People On-board</b>	1 + 0	<b>Number of People Injured</b>	1	<b>Number of People Killed</b>	0	<b>Other (On Ground)</b>	0
<b>Synopsis</b>							
<p>On Sunday afternoon, 1 December 2024, a pilot on-board a Cubby aircraft with registration ZU-DWY took off on a scenic local flight from Runway (RWY) 13 at Highway Airfield in Knysna, Western Cape province, with the intention to return to 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.</p> <p>Initially, the pilot took off with a passenger on-board who became airsick. This flight lasted approximately 10 minutes, and the pilot landed the aircraft on RWY 13 for the passenger to disembark. The pilot then taxied the aircraft back to the beginning of RWY 13 and took off. According to the eyewitness (the passenger who became airsick) the take-off was uneventful. Standing in front of the hangars at Highway Airfield, the eyewitness observed the aircraft as it climbed before it turned 180° (tear drop) to the right, positioning for landing on RWY 31. During the turn, the engine stopped and the aircraft stalled; it then nose-dived towards the ground. The pilot was unable to recover the aircraft from the stall as it was at a low altitude; it impacted the ground and rested in a nose-down attitude. The eyewitness notified the people at the airfield who rushed to Forest View Farm where the aircraft had crashed. The pilot suffered serious injuries, and the aircraft sustained substantial damage.</p>							
<b>Probable Cause</b>							
The engine stopped during climb and the aircraft stalled as the pilot attempted to land on the reciprocal RWY 31; the aircraft crashed and rested in a nose-dive attitude.							
<b>Contributory Factor</b>							
The aircraft was stationary for three months prior to the accident flight.							
<b>SRP Date</b>	9 December 2025		<b>Publication Date</b>	10 December 2025			

## Occurrence Details

**Reference Number** : CA18/2/3/10533  
**Occurrence Category** : Accident (Category 1)  
**Type of Operation** : Private (Part 94)  
**Name of Operator** : M I Guerini  
**Aircraft Registration** : ZU-DWY  
**Aircraft Make and Model** : Cubby Wings and Cubby  
**Nationality** : South African  
**Registration** : ZU-DWY  
**Place** : 0.95nm from Highway Airfield  
**Date and Time** : 1 December 2024 at 1330Z  
**Injuries** : 1  
**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 which happened on 1 December 2024 at 1330Z. 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 dispatched to this accident site.

### Notes:

- Whenever the following words are mentioned in this report, they shall mean the following:  
Accident — this investigated accident  
Aircraft — the Cubby aircraft 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

*This report is produced without prejudice to the rights of the South African Civil Aviation Authority (SACAA), which are reserved.*

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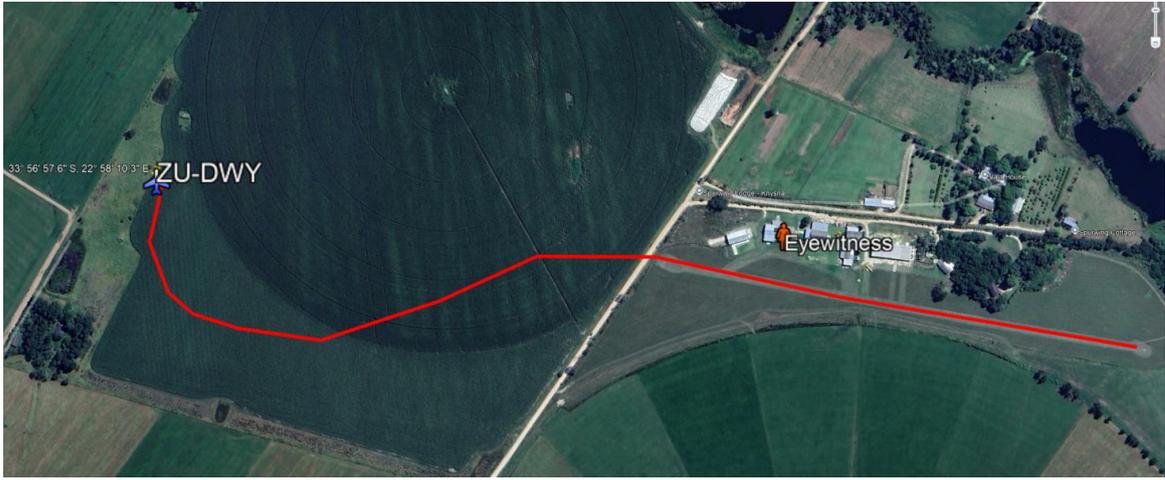
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<b>Abbreviation</b>	<b>Description</b>
°	Degrees
°C	Degrees Celsius
ACCID	Accident
AIID	Accident and Incident Investigations Division
AP	Approved Person
ATF	Authority-to-Fly
C of R	Certificate of Registration
CAR	Civil Aviation Regulations
CAVOK	Cloud and Visibility OK
CRS	Certificate of Release to Service
CVR	Cockpit Voice Recorder
FAGG	George Airport
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 Sunday afternoon, 1 December 2024, a pilot on-board a Cubby aircraft with registration ZU-DWY took off on a local scenic flight from Highway Airfield in Knysna, Western Cape province, with the intention to land 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. Initially, the pilot had taken off with a passenger on-board who became airsick. The flight lasted approximately 10 minutes; the pilot landed back on Runway (RWY) 13 for the passenger to disembark. The pilot did not shut down the aircraft's engine whilst the passenger disembarked; he kept it on idle. Thereafter, he taxied the aircraft back to the beginning of RWY 13 and took off. The eyewitness (the passenger who was airsick) was standing in front of the hangars, approximately 40 metres (m) from the runway; she watched the initial take-off which was uneventful.
- 1.1.3. The eyewitness stated that the aircraft flew over the runway and climbed. It turned left, and thereafter, right, flying what appeared to be a teardrop manoeuvre to position for landing on RWY 31 (the opposite runway). The eyewitness further stated that she did not hear the engine sound. Whilst in a turn to the right, the eyewitness noticed the aircraft as it descended in what looked like a nose-dive attitude and disappeared beyond the terrain. She then notified the people at the airfield who went to investigate; the aircraft was located in Forest View Farm. They discovered that the aircraft had crashed and rested in a nose-down position (tail-high attitude); it faced east. The pilot had sustained serious injuries, and the aircraft was substantially damaged. The pilot was taken to a hospital by the emergency services personnel.
- 1.1.4. The accident occurred on a cultivated field in a private farm situated 0.35 nautical miles (nm) from Highway Airfield, at Global Positioning System (GPS) co-ordinates determined to be 33° 56' 57.6" South 22° 58' 10.3" East, at an elevation of 790 feet (ft).



**Figure 1:** The accident site and the flight path after take-off. (Google Earth)

## 1.2. Injuries to Persons

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	1	-	-	1	-
Minor	-	-	-	-	-
None	-	-	-	-	-
<b>Total</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>

Note: Other means people on the ground.

## 1.3. Damage to Aircraft

1.3.1. The aircraft sustained substantial damage when it impacted the ground.



**Figure 2:** The wreckage post-accident.

## 1.4. Other Damage

1.4.1. None.

## 1.5. Personnel Information

Nationality	South African	Gender	Male	Age	50
Licence Type	National Pilot Licence (NPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	None				
Medical Expiry Date	31 January 2027				
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	797.7
Total Past 24 Hours	Unknown
Total Past 7 Days	Unknown
Total Past 90 Days	Unknown
Total on Type Past 90 Days	Unknown
Total on Type	Unknown

**Note:** The following information is an extract from the pilot's logbook which was last updated in February 2023.

1.5.1. The pilot had a National Pilot Licence (NPL) that was initially issued on 31 March 2006. The licence was renewed on 20 February 2023 with an expiry date of 8 February 2025.

1.5.2. The pilot had a Class 4 aviation medical certificate that was issued on 9 January 2024 with an expiry date of 31 January 2027 with no medical restrictions.

1.5.3. During a review of the pilot's logbook, it was observed that there was no record of hours flown since February 2023 until the accident date.

## 1.6. Aircraft Information

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

*The aircraft type is a tandem configuration cockpit arrangement. It has a fixed tricycle landing gear and is equipped with a fuel injected Volkswagen 2.1 litres (L) engine fitted with a three-blade propeller. When the aircraft's empty weight and balance are calculated properly, the*

centre of gravity (CG) is positioned in front of the wing leading edge. The wing leading edge is the datum from which all arm measurements are taken.

**Airframe:**

Manufacturer/Model	Cubby Wings/Cubby	
Serial Number	AK 0505	
Year of Manufacture	2005	
Total Airframe Hours (At Time of Accident)	213.7	
Last Inspection (Date & Hours)	30 September 2024	199.9
Airframe Hours Since Last Inspection	13.8	
CRS Issue Date	30 September 2024	
ATF (Issue Date & Expiry Date)	4 November 2024	31 October 2025
C of R (Issue Date) (Present Owner)	24 May 2021	
Operating Category	Part 94	
Type of Fuel Used	Mogas	
Previous Accidents	Yes	

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

**Engine:**

Manufacturer/Model	Volkswagen 2.1
Serial Number	SFH1090102
Hours Since New	213.7
Hours Since Overhaul	TBO not yet reached

**Propeller:**

Manufacturer/Model	De Necker / P Prop 70" x 47P
Serial Number	N3511-FEG6
Hours Since New	64.7
Hours Since Overhaul	TBO not yet reached

1.6.2 The aircraft underwent a 50-hour mandatory periodic inspection (MPI) on 30 September 2024 after which a Certificate of Release to Service (CRS) was issued at 199.9 hours with an expiry date of 29 September 2025 or at 249.9 hours, whichever comes first. An approved person (AP) who was authorised to conduct maintenance had conducted the MPI. The aircraft was purchased by the present owner on 24 May 2021. The pilot was the only person flying the aircraft as he was the owner of the aircraft.

1.6.3 According to available records, on 23 February 2023, the engine casing cracked, subsequently, a new engine casing was fitted. The flight folio was last updated on 11

September 2024. The flight folio was not properly maintained by the pilot-in-command (PIC) as required by the CAR Part 91.03.05.

1.6.4 According to the CAR Part 91.03.5 (2)

*The pilot contravened the Civil Aviation Regulation **Part 91.03.5***

*Flight Folio*

*(1) The owner or operator of a South African registered aircraft shall ensure that the aircraft carries a flight folio or any other similar document which meets the requirements of and contains the information as prescribed in Document SA-CATS 91, at all times.*

*(2) The flight folio shall be kept up-to-date and maintained in a legible manner by the PIC.*

*(3) All entries shall be made immediately upon completion of the occurrence to which they refer.*

1.6.5 There were no other updates in the flight folio from 11 September 2024 until the day of the accident flight, which meant that the aircraft had been on the ground (not flown) for approximately three months. Prior to the flight, the pilot had to refuel the aircraft; this meant that the aircraft was parked for three months without a full tank of fuel. The pilot used the Jerry cans to refuel the aircraft; he also did not record fuel uplifts on the flight folio. The investigator could not determine how much fuel was on-board prior to the aircraft being refuelled. Due to the fuel tank rupturing during the accident, there was no fuel available for testing. Therefore, fuel contamination could not be confirmed. The first responders reported that there was fuel spillage at the accident site.

## 1.7 Meteorological Information

1.7.1 The weather information below was obtained from the Meteorological Aerodrome Report (METAR) that was issued by the South African Weather Service (SAWS), recorded at George Airport (FAGG) on 1 December 2024 at 1200Z. The accident site is 54.9 kilometres (km) from FAGG.

Wind Direction	170°	Wind Speed	07 kt	Visibility	1000m
Temperature	20°C	Cloud Cover	FEW 1800 ft	Cloud Base	SCT 2400 ft
Dew Point	15°C	QNH	1017 hPa		

## 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 0.95m from RWY 31 at Highway Airfield.

Aerodrome Name	Highway Airfield
Aerodrome Location	Western Cape Province
Aerodrome Status	Unlicensed
Aerodrome GPS coordinates	33°56'57.6" South, 022°58'10.3" East
Aerodrome Elevation	790 ft
Runway Headings	13 / 31
Dimensions of Runway Used	600m
Heading of Runway Used	RWY 13
Surface of Runway Used	Grass
Approach Facilities	None
Radio Frequency	124.4-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 accident occurred on a cultivated field in a private farm. The wreckage was found intact; no parts had detached during the impact sequence. The aircraft impacted the ground in a nose-dive attitude and remained tail high with the nose embedded in the ground; the aircraft faced east. All aircraft control surfaces were tested for continuity on site, and no restriction

was found. The elevator (Figure 3) indicated the nose-up position which was likely caused by the impact force with the ground, pushing it back and, thus, resulting in the elevator indicating a nose-up position.



**Figure 3:** The aircraft as it was found at the accident site.

1.12.2 One of the three propeller blades broke off during impact which was consistent with the engine that had little or no power. The impact caused a crater that was approximately 60 centimetres (cm) deep, consistent with a nose-dive attitude at the time of the crash.



**Figure 4** The crater on the ground.



**Figure 5:** The damaged wing root.

1.12.3. The damage sustained by the wing on the root structure was consisted with the downward force when the aircraft impacted the ground. The wings leading edge did not suggest impact with the ground. The fuel tank ruptured during the crash; hence, sampling of fuel was not possible.

### **1.13 Medical and Pathological Information**

1.13.1 The pilot was admitted to the hospital after the accident; he had sustained serious injuries to the left leg, right shoulder and abdominal section of his body. He was discharged from the hospital on 3 April 2025. After his release from the hospital, he could not recall the sequence of events of the day of the accident.

## **1.14 Fire**

1.14.1 There was no evidence of a pre- or post-impact fire.

## **1.15 Survival Aspects**

1.15.1 Although the pilot survived; the accident was not considered survivable. The aircraft impacted the ground in a steep nose-dive attitude. The safety harness was unable to restrain the pilot to prevent injury due to the magnitude of the impact force. The impact force caused the front of the aircraft to fold back, compressing the cockpit and limiting the pilot's safety room (reducing the space between the pilot seat and the instrument panel); the control column impaled the pilot, resulting in serious abdominal injuries. The pilot was unable to remember the sequence of events due to the trauma he had suffered.

## **1.16 Tests and Research**

1.16.1 The aircraft engine was recovered to the AP for further investigation. During the examination on 4 December 2024, the engine was found intact with damage sustained from the impact sequence but with no restriction of the crankshaft movement. Due to the intensity of the impact that required a shock load inspection, the engine could not be bench-tested. The AP conducted a fuel flow test by focusing on the examination of the fuel injectors. This was conducted in the absence of the investigator. The following was observed during testing:

- Leakage test was 100%
- Uniformity test was in good condition
- Spray ability was in good condition
- Acceleration test was good
- The fuel injectors were in good condition

## **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 24 May 2021.

1.17.3 The aircraft's Authority-to-Fly (ATF) Certificate was issued on 4 November 2024 with an expiry date of 31 October 2025.

1.17.4 The AP was authorised to conduct maintenance on this type of aircraft and had a valid AP Certificate that was issued on 24 November 2020 with expiry date 22 October 2026.

## 1.18 Additional Information

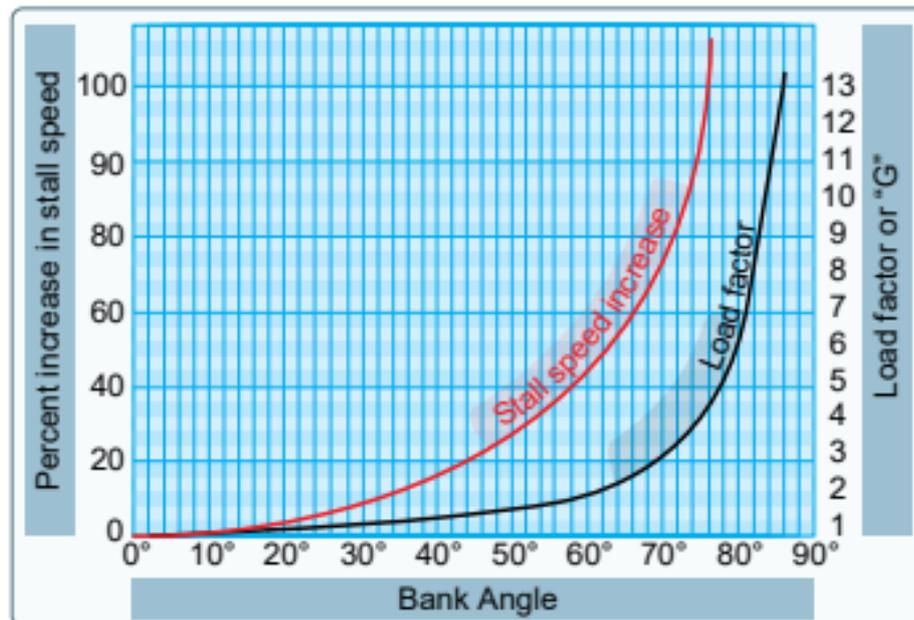
1.18.1 The following information is an extract from the Aircraft Flying Handbook: FAA-8083-3A

*Checking for water and other sediment contamination is a key pre-flight element. Water tends to accumulate in fuel tanks from condensation, particularly in partially filled tanks. Because water is heavier than fuel, it tends to collect in the low points of the fuel system. Water can also be introduced into the fuel system from deteriorated gas cap seals exposed to rain, or from the supplier's storage tanks and delivery vehicles. Sediment contamination can arise from dust and dirt entering the tanks during refuelling, or from deteriorating rubber fuel tanks or tank sealant. The best preventive measure is to minimise the opportunity for water to condense in the tanks. If possible, the fuel tanks should be completely filled with the proper grade of fuel after each flight or at least filled after the last flight of the day. The more fuel there is in the tanks, the less opportunity for condensation to occur. Keeping fuel tanks filled is also the best way to slow the ageing of rubber fuel tanks and tank sealant. Sufficient fuel should be drained from the fuel strainer quick drain and from each fuel tank sump to check for fuel grade/colour, water, dirt and smell. If water is present, it will usually be in bead-like droplets, different in colour (usually clear, sometimes muddy), in the bottom of the sample. In extreme cases, do not overlook the possibility that the entire sample, particularly a small sample, is water. If water is found in the first fuel sample, further samples should be taken until no water appears. Significant and/or consistent water or sediment contamination are grounds for further investigation by qualified maintenance personnel. Each fuel tank sump should be drained during pre-flight and after refuelling.*

1.18.2 The following information is an extract from the Aircraft Flying Handbook: FAA-8083-25c

*The stalling speed of an aircraft is also higher in a level turn than in straight-and-level flight. [Figure 5-39] Centrifugal force is added to the aircraft's weight, and the wing must produce sufficient additional lift to counterbalance the load imposed by the combination of centrifugal force and weight. In a turn, the necessary additional lift is acquired by applying back pressure to the elevator control. This increases the wing's angle-of-attack (AOA) and results in increased lift. The AOA must increase as the bank angle increases to counteract the increasing load caused by centrifugal force. If at any time during a turn the AOA becomes excessive, the aircraft stalls. At this point, the action of the aircraft during a stall should be examined. To balance the aircraft aerodynamically, the coefficient of lift (CL) is normally*

located aft of the centre-of-gravity (CG). Although this makes the aircraft inherently nose-heavy, downwash on the horizontal stabiliser counteracts this condition. At the point of stall, when the upward force of the wing's lift diminishes below that required for sustained flight and the downward tail force decreases to a point of ineffectiveness, or causes it to have an upward force, an unbalanced condition exists. This causes the aircraft to pitch down abruptly, rotating about its CG. During this nose-down attitude, the AOA decreases, and the airspeed again increases. The smooth flow of air over the wing begins again, lift returns, and the aircraft begins to fly again. Considerable altitude may be lost before this cycle is complete.



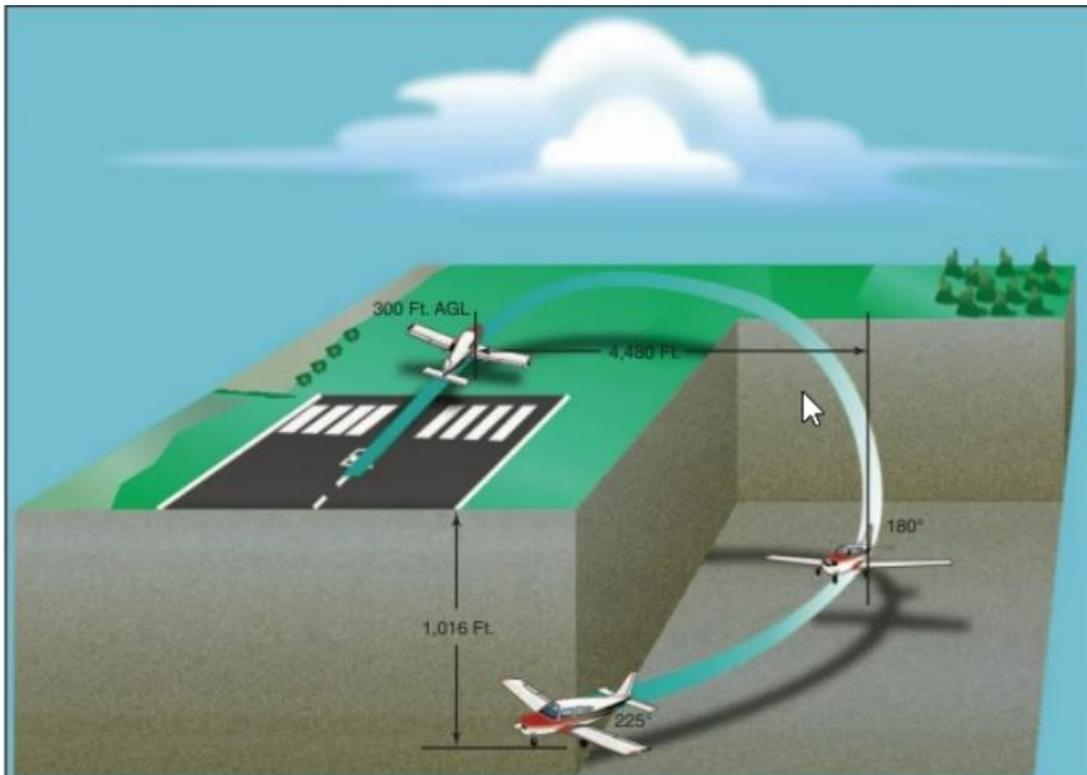
**Figure 6:** The graph shows an increase in stall speed and load factor.

1.18.3 The following information is an extract from Aircraft Flying Handbook FAA-8083-25c

#### *Engine Failure after Take-off (Single engine)*

*The altitude available is, in many ways, the controlling factor in the successful accomplishment of an emergency landing. If an actual engine failure should occur immediately after take-off and before a safe manoeuvring altitude is attained, it is usually inadvisable to attempt to turn back to the field from where the take-off was made. Instead, it is safer to immediately establish the proper glide attitude and select a field directly ahead or slightly to either side of the take-off path. The decision to continue straight ahead is often difficult to make unless the problems involved in attempting to turn back are seriously considered. In the first place, the take-off was in all probability made into the wind. To get back to the take-off field, a downwind turn must be made. This increases the groundspeed*

and rushes the pilot even more in the performance of procedures and in planning the landing approach. Secondly, the airplane will be losing considerable altitude during the turn and might still be in a bank when the ground is contacted, resulting in the airplane cartwheeling (which would be a catastrophe for the occupants, as well as the airplane). After turning downwind, the apparent increase in groundspeed could mislead the pilot into attempting to prematurely slow down the airplane and cause it to stall. On the other hand, continuing straight ahead or making a slight turn allows the pilot more time to establish a safe landing attitude, and the landing can be made as slowly as possible, but more importantly, the airplane can be landed while under control.



**Figure 7:** The picture illustrates the possibility to land back on the runway after an engine failure.

## 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 NPL that was issued on 31 March 2006. The licence was reissued on 20 February 2023 with an expiry date of 8 February 2025. The aircraft type was endorsed on the pilot's licence and logbook. The pilot had a Class 4 aviation medical certificate that was issued on 9 January 2024 with an expiry date of 31 January 2027 with no medical restrictions.
- 2.2.2. The aircraft underwent a 50-hour MPI on 30 September 2024 after which a Certificate of Release to Service (CRS) was issued at 199.9 hours with an expiry date of 29 September 2025 or at 249.9 hours, whichever comes first. The aircraft was last flown on 11 September 2024, three months before the accident flight.
- 2.2.3. The weather conditions of the day did not contribute to this accident.
- 2.2.4. Before the first flight, the pilot refuelled the aircraft with an unknown amount of fuel. During the accident sequence, the fuel tank ruptured; therefore, sampling of fuel was not possible. The pilot stowed 100LL fuel inside the Jerry cans; it was unknown how much fuel was in storage. The aircraft was on the ground for almost three months with a small amount of fuel in the tank. Due to the hot summer temperatures, fuel evaporates (condenses), forming water droplets that find their way back into the fuel. Had the pilot conducted proper pre-flight check, he would have discovered that there was water in the fuel and would have repeatedly drained it (water) until there was no more water sediments. Fuel exhaustion was not likely as the tank had ruptured and the fuel spilled.
- 2.2.5. The first flight was uneventful due to the immediate mixture of fuel and water during refuelling. Despite the suspected fuel contamination, the mixed water and fuel allowed the aircraft to continue operating for approximately 10 minutes. The pilot landed the aircraft due to the passenger feeling airsick. During backtracking, it is likely that the water that was dispersed regrouped and formed a layer at the bottom of the tank. At take-off, fuel that remained in the fuel lines was enough to support the aircraft during the initial climb and, when water was ingested in the engine as the flight continued, the engine stopped. During the engine stoppage, the pilot attempted to return to the airfield by conducting a teardrop manoeuvre but the aircraft stalled due to lack of power and reduced speed. The pilot did not follow the recommended practice of landing straight ahead after experiencing an engine stoppage during take-off.

### 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 had a National Pilot Licence (NPL) that was initially issued on 31 March 2006. The licence was reissued on 20 February 2023 with an expiry date of 8 February 2025. The aircraft type was endorsed on his licence and logbook.

3.2.2. The pilot had a Class 4 aviation medical certificate that was issued on 9 January 2024 with an expiry date of 31 January 2027 with no medical restrictions.

3.2.3. The aircraft was purchased by the present owner on 24 May 2021; the pilot was the only one flying the aircraft as he was the owner of the aircraft.

3.2.4. The aircraft underwent a 50-hour mandatory periodic inspection (MPI) on 30 September 2024 after which a Certificate of Release to Service (CRS) was issued at 199.9 hours with an expiry date of 29 September 2025 or at 249.9 hours, whichever comes first.

3.2.5. The AP was authorised to conduct maintenance on this type of aircraft and had a valid AP Certificate that was issued on 24 November 2020 with an expiry date 22 October 2026.

- 3.2.6. The aircraft was last flown on 11 September 2024 prior to the accident flight; this meant that it had not been flown for approximately three months which resulted in the presence of water in the fuel tank.
- 3.2.7. There was no evidence to suggest that the pilot had conducted adequate pre-flight checks which include checking for possible fuel contamination prior to the flight.
- 3.2.8. The pilot attempted to return to the airfield instead of landing straight ahead as recommended in such a situation.
- 3.2.9. The engine was recovered to the AP premises for further inspection after the accident. Due to internal damage sustained to the engine, it was not possible to conduct a bench test-run of the engine. The AP tested the fuel injectors and found that they were operational and in good condition.

### **3.3. Probable Cause/s**

- 3.3.1. The engine stopped during climb and the aircraft stalled as the pilot attempted to land on the reciprocal RWY 31; the aircraft crashed and rested in a nose-dive attitude.

### **3.4. Contributory Factor/s**

- 3.4.1. The aircraft was stationary for three months prior to the accident flight.

## **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**