LIMITED OCCURRENCE INVESTIGATION REPORT

Reference Number	CA18/2/3/10581					
Classification	Accident	**Date**	27 April 2025	**Time**	0700Z	
Type of Operation	Private (Part 94)					
Location						
Place of Departure	Rand Aerodrome (FAGM), Gauteng Province	Place of Intended Landing	Brits Aerodrome (FABS), North West Province			
Place of Occurrence	On a narrow gravel road approximately 3 nautical miles (nm) north of Brits Aerodrome, North West Province					
GPS Co-ordinates	Latitude	25°28' 53.57" S	Longitude	027°45' 40.72" E	Elevation	3 732 Ft
Aircraft Information						
Registration	ZU-ASI					
Make; Model; S/N	Piper, PA-18-150 Super Cub (Serial Number: 18-8012)					
Damage to Aircraft	Substantial	Total Aircraft Hours	4 331.42			
Pilot-in-command						
Licence Type	Airline Transport Pilot Licence (ATPL)	Gender	Male	Age	48	
Licence Valid	Yes	Total Hours	10 760.1	Total Hours on Type	9.4	
Total Hours 30 Days	9.4	Total Flying on Type Past 90 Days	9.4			
People On-board	1 + 1	**Injuries**	0	**Fatalities**	0	**Other (on ground)** 0

What Happened

On Sunday morning, 27 April 2025, a pilot and a passenger on-board a Piper PA-18-150 Super Cub aircraft with registration ZU-ASI took off on a private flight from Rand Aerodrome (FAGM) in Gauteng province to Brits Aerodrome (FABS) in North West province. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 94 of the Civil Aviation Regulations 2011, as amended.

The pilot stated that the aircraft had a total of 9 US gallons Avgas 100LL in the fuel tanks during the pre-flight inspection. The aircraft departed from Runway 11 and climbed to 7 500 feet (ft) above mean sea level (AMSL), cruising at a speed of approximately 100 miles per hour (mph). The flight to FABS was regarded by the pilot as uneventful; however, after 1 hour of flight time during approach to land on Runway 20 at FABS, the engine lost power and ultimately stopped. The pilot decided to execute a forced landing on a dirt road approximately 3 nautical miles (nm) north of FABS. During the landing roll, the aircraft ground-looped to the left, and the right-wing tip and right elevator impacted the ground. The left-wing leading edge outboard section also sustained damage during the accident sequence. The aircraft came to rest on the dirt road. The aircraft sustained substantial damage; however, no person was injured.

Figure 1: The approximate accident site shown by the yellow pin. (Source: Google Earth)

Figures 2 and 3: The aircraft after the accident. (Source: Pilot)

Post-accident examination of the aircraft by an approved person (AP) revealed that both wings fuel tank caps were properly secured. After opening the fuel caps, it was found that the fuel tanks were empty. The fuel filter and the gascolator were also empty, indicating that the engine stopped due to fuel exhaustion.

The aircraft's total fuel capacity is 18 US gallons of which 1 gallon is unusable (0.5 / half a gallon in each fuel tank). There were no leaks in the system, the pilot took off with insufficient fuel.

The aircraft was powered by a Lycoming O-320 reciprocating/piston engine delivering 150 horsepower (hp) with fuel consumption of 9 US gallons per hour (p/h) at 75 percent power.

Findings

1. The pilot had an Airline Transport Pilot Licence (ATPL) that was issued on 12 July 2024 with an expiry date of 31 July 2025. The aircraft type was endorsed on the pilot's licence and logbook. The pilot had accumulated a total of 10 760.1 hours.

2. The pilot had a Class 1 aviation medical certificate that was issued on 27 June 2024 with an expiry date of 30 June 2025 with no medical restrictions.

3. The aircraft had a valid Authority-to-Fly (ATF) Certificate that was initially issued on 17 December 2019. The ATF was reissued on 19 August 2024 with an expiry date of 18 August 2025.

4. The Certificate of Registration (C of R) was issued to the current owner on 10 November 2021.

5. The aircraft Certificate of Release to Service (CRS) was issued on 3 April 2024 at 268.42 hours with an expiry date of 2 June 2025 or at 368.42 hours, whichever comes first.

6. The pilot took off with insufficient fuel, as a result, the engine stopped in-flight.

Probable Cause(s)

Unsuccessful forced landing on a narrow dirt road due to engine stoppage caused by fuel exhaustion.

Contributing Factor(s)

1. Improper flight planning.
2. Poor airmanship.

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