

LIMITED ACCIDENT INVESTIGATION REPORT

Reference Number	CA18/2/3/10014						
Classification	Accident	Date	16 June 2021	Time	1100Z		
Type of Operation	Private (Part 94)						
Location							
Place of Departure	Margate Aerodrome (FAMG), KwaZulu-Natal Province		Place of Intended Landing		Magwa Private Airstrip, Eastern Cape Province		
Place of Accident	Next to a beach, North of Port St John's, KwaZulu-Natal						
GPS Co-ordinates	Latitude	S31°23'.736	Longitude	E029°41'.548	Elevation	1 500 feet	
Aircraft Information							
Registration	ZU-ENP						
Make / Model	Savannah MXP-740V						
Damage to Aircraft	Minor		Total Aircraft Hours	603			
Pilot-in-command							
Licence Valid	Yes		Gender	Male		Age: 67	
Licence Type	National Pilot Licence (NPL)						
Total Hours on Type	17.4		Total Flying Hours	8000			
People On-board	1 + 1	Injuries	0	Fatalities	0	Other (On Ground)	0
What Happened							
<p>On Wednesday, 16 June 2021, a pilot accompanied by a passenger were on a private flight from Margate Aerodrome (FAMG) in KwaZulu Natal province, destined for Magwa private airstrip, situated on the northern side of Port St John's in the Eastern Cape province when the accident occurred. The flight was conducted under Visual Meteorological Conditions (VMC) by day and no flight plan was filed. The pilot reported that before the flight, he conducted a pre-flight inspection, and all was normal. The aircraft had about 75 litres of Avgas LL100 fuel and the engine oil level was within limits. The duo then boarded the aircraft, and the pilot started the engine without struggle. All engine parameters were normal. The pilot taxied the aircraft to the departure runway at FAMG where he took off without incident. About five minutes after take-off, the pilot went through the after-take-off checklist and noted that all the instruments were reading accurately, including the oil pressure and oil temperature indications.</p>							

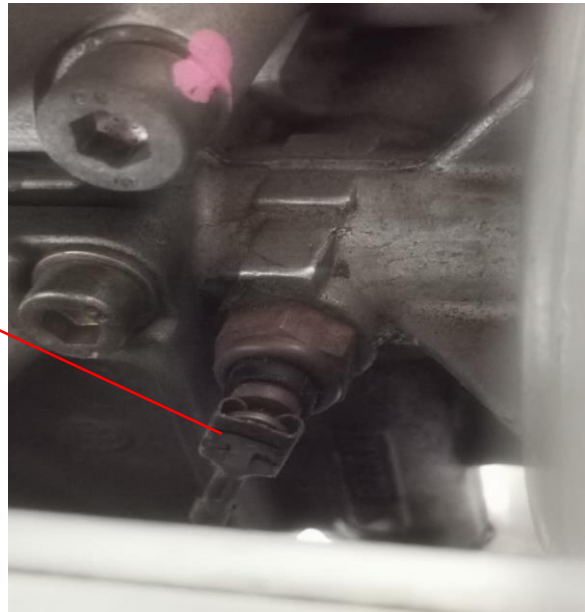
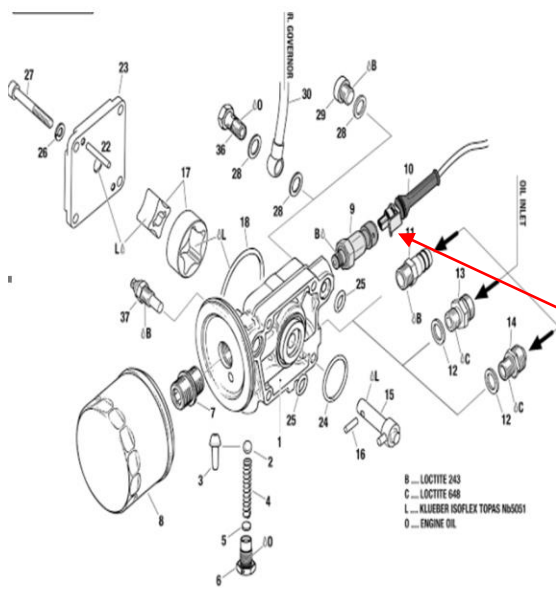
At this point, the aircraft was cruising at about 1000 feet (ft) above ground level (AGL) and travelling at 90 miles per hour (mph) along the coastline. After 20 minutes into the flight, the pilot was alerted to an erratic engine oil temperature warning indication. As a safety precaution, the pilot switched off the engine to avoid possible engine damage and glided the aircraft to an open space to execute a forced landing. Touch down next to the beach was normal, however, during the ground roll, the nose wheel dug into the soft sand. As a result, the aircraft's nose pitched down and the propeller hit the ground. The aircraft sustained minor damages and the occupants on-board were not injured.



Figure 1: The aircraft as it was loaded onto a trailer with wings removed. (Source: Pilot)

Post-accident, the pilot inspected underneath the instruments panel to verify if the electrical wiring and connections were in order; he found that all was normal. The pilot then disembarked the aircraft and opened the engine cowlings; visual inspection of the engine, a Rotax 912-ULS four-cylinder engine, was conducted and there were no signs of oil leak. The pilot noticed that the electrical temperature sensor wire for the oil temperature gauge that is mounted on the engine casing was not properly secured (it was loose). The pilot pushed it into position with a plier and tightened it. He then switched on the master and checked the oil temperature needle position, which indicated normal pressure at green arch. *The oil temperature sensor on a Rotax 912-ULS engine measures the temperature of the oil as it enters the engine after coming out of the oil cooler.*

The investigation concluded that the erratic oil temperature warning indication was due to a faulty signal from the electrical temperature sensor wire which caused the oil temperature gauge to show erratic readings.



Figures 2/3: (Left) The engine schematics from the illustrated parts catalogue (IPC) shows the location of the oil temperature sensor on the engine casing. (Right) The engine oil temperature sensor mounted on the engine casing.

Safety Action/s:

None.

Safety Message and/or Safety Recommendation/s:

Safety Recommendation: None.

Safety message:

Pilots to ensure that they conduct a proper pre-flight inspection with emphasis on the security of components and their associated wiring.

Purpose of the Investigation

*In terms of Part 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.***

About this Report

Decisions regarding whether to investigate, and the scope of an investigation are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, no 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 brief report. The report has been compiled using information supplied in the initial notification, as well as follow-up information 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 accident.

This report provides an opportunity to share safety message/s in the absence of an investigation.

*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.*

Disclaimer

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**This report is issued by:
Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**