



Section/division **Accident and Incident Investigations Division**

Form Number: CA 12-57

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10660						
Classification	Accident		Date	7 June 2026		Time	1350Z
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Cape Winelands Aerodrome (FAWN), Western Cape Province		Place of Intended Landing	Cape Winelands Aerodrome (FAWN), Western Cape Province			
Place of Occurrence	Private farmland in Kasteelberg, Western Cape Province						
GPS Co-ordinates	Latitude	33°19'12.56" S	Longitude	018°51'18.88" E	Elevation	567 feet	
Aircraft Information							
Registration	ZS-EGL						
Make; Model; S/N	Cessna; 150F (Serial Number: 150-62070)						
Damage to Aircraft	Substantial			Total Aircraft Hours	8 555.52		
Pilot-in-command							
Licence Type	Student Pilot Licence (SPL)		Gender	Male	Age	24	
Licence Valid	Yes	Total Hours	40.8	Total Hours on Type	40.8		
Total Hours 30 Days	18.2		Total Flying on Type Past 90 Days	29.1			
People On-board	1+0	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
On Sunday afternoon, 7 June 2026, a student pilot (SP) on-board a Cessna 150F aircraft registered ZS-EGL took off on a training flight from Cape Winelands Aerodrome (FAWN) in Western Cape province with the intention to return to the same aerodrome. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011, as amended. The SP stated that the pre-flight inspection of the aircraft was conducted and no anomalies were found. The aircraft had a total of 38 US gallons of Aviation Gasoline 100 Low Lead (Avgas 100LL) in the tanks. After take-off, he routed to the general flying area (GFA) to practise steep turns. An hour later, the engine ran rough, and the revolutions per minute (rpm) decreased from 2 400 to 1 800. The SP contacted his instructor and was advised to switch on the carburettor heat after which the engine power dropped to 900 rpm; shortly thereafter, the engine stopped. Moreover, the aircraft began losing forward speed. As a result, the SP began a descent whilst attempting an engine restart, but to no avail. When the aircraft was approximately 1 500 feet (ft), the SP began surveying the surrounding area and identified a ploughed field in a private farmland on which to conduct a forced landing. During the forced landing, the right-wing tip impacted the soft ground, and the nose landing gear struck the berm which caused the strut to bend backwards. Consequently, one of the propeller blades also struck the soft							

ground. The aircraft sustained damage to the right-wing tip, nose landing gear and propeller. The SP was not injured during the accident sequence.



Figure 1: An aerial view of the approximate area where the pilot conducted a forced landing.
(Source: Google Earth)



Figure 2: The aircraft at the accident site. (Source: Pilot)

The aircraft was recovered to a hangar at Cape Winelands Aerodrome. An aircraft maintenance organisation (AMO) conducted a post-accident inspection. The aircraft had approximately 30 US gallons of Avgas 100LL in the tanks. Fuel samples were taken from the wing tanks, and no contaminants were found. A temporary loaner propeller was fitted to the engine after which a team of aircraft maintenance engineers (AME) conducted an engine ground run; no defects were noted during the ground run. All primary engine indications remained within the manufacturer's specified green bands.

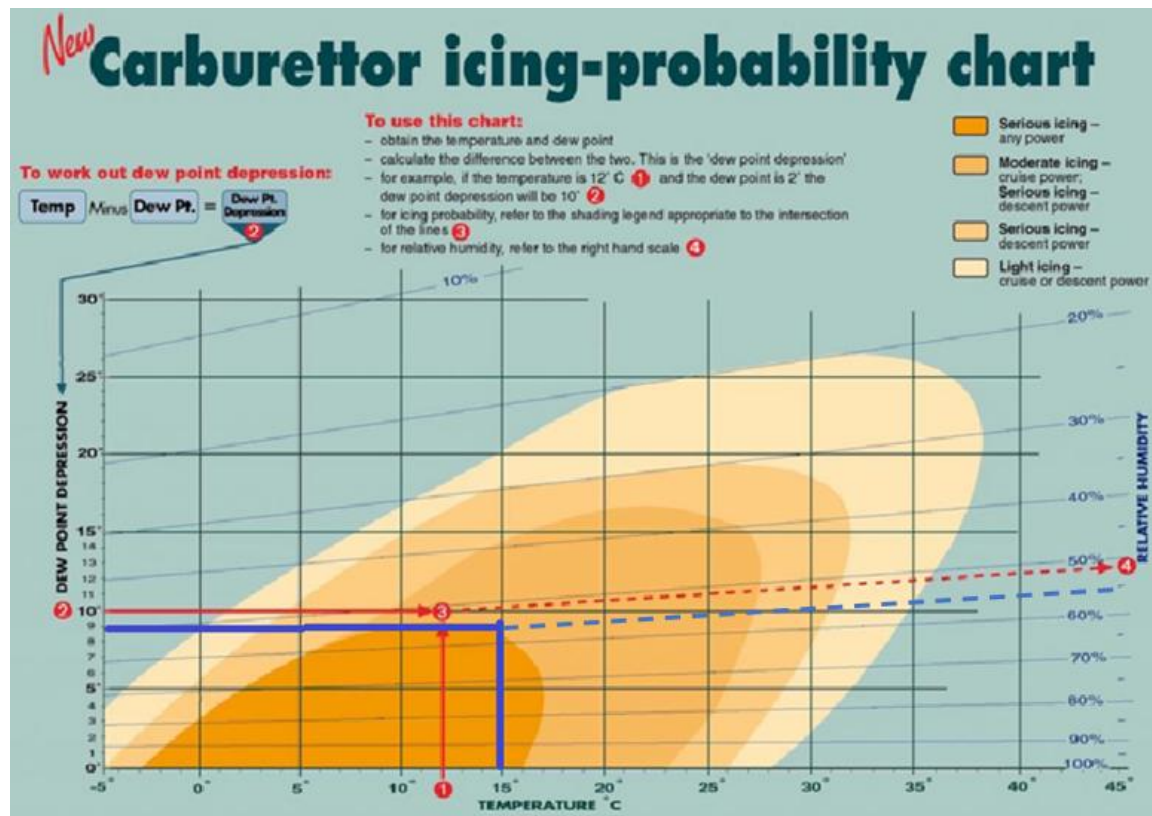


Figure 3: The blue lines indicate the dew point depression and temperature.

The temperature at the time of the accident was 15°C and the dew point was 6°C, which equated to a dew point depression of 9°C. The probability of icing would have been moderate at cruise power setting and serious at descent power setting.

Carburettor Icing (Source: FAA-H-8083-25B)

One disadvantage of the float-type carburettor is its icing tendency. Carburettor ice occurs due to the effect of fuel vaporisation and the decrease in air pressure in the venturi, which causes a sharp temperature drop in the carburettor. If water vapour in the air condenses when the carburettor temperature is at or below freezing, ice may form on internal surfaces of the carburettor, including the throttle valve. The first indication of carburettor icing in an aircraft with a fixed-pitch propeller is a decrease in engine rpm, which may include engine roughness.

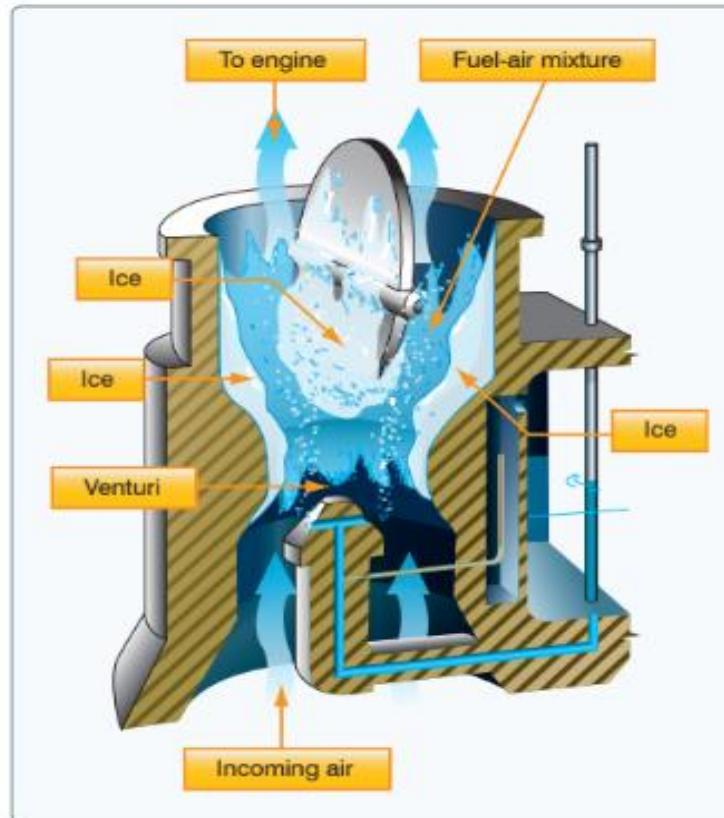


Figure 4: The formation of carburettor ice reduces or blocks fuel/air mixture. (Source: FAA-H-8083-25B)

Findings

1. Pilot

- 1.1. The student pilot had a Student Pilot Licence (SPL) that was initially issued by the Regulator (SACAA) on 22 October 2025 with an expiry date of 31 October 2027. The SP's Class 1 aviation medical certificate was issued on 22 October 2025 with an expiry date of 31 October 2026.
- 1.2. The SP had a total of 40.8 hours on the aircraft type.

2. Aircraft

- 2.1. The latest mandatory periodic inspection (MPI) of the aircraft was conducted and certified on 30 May 2026 at 1 060.4 total airframe hours after which a Certificate of Release to Service (CRS) was issued with an expiry date of 30 May 2027 or at 1 160.4 hours, whichever comes first. The aircraft had a total of 1 115.1 hours at the time of the flight. The aircraft had accumulated a total of 54.7 hours since the last MPI.
- 2.2. The aircraft had a valid Certificate of Airworthiness (C of A) that was initially issued by the Regulator on 21 January 1969. The latest C of A had an expiry date of 31 January 2027.
- 2.3. The aircraft's Certificate of Registration (C of R) was issued to the current owner on 15 February 2018.

2.4.	The aircraft maintenance organisation (AMO) which conducted the MPI had an AMO Certificate that was issued on 4 December 2025 with an expiry date of 30 November 2026. The aircraft type was endorsed in AMO's operational specifications.
2.5.	The approved training organisation (ATO) had an ATO Certificate that was issued on 25 April 2024 with an expiry date of 31 March 2029. The aircraft type was endorsed in ATO's operational specifications.
3.	<u>Environment</u>
3.1.	Fine weather conditions prevailed at the time of the flight; however, the combination of low ambient temperature and the prevailing atmospheric conditions were conducive to carburettor ice formation.
3.2.	The carburettor icing probability chart indicated a high level of atmospheric humidity with a moderate probability of icing at cruise power and a serious probability during descent power settings.
3.3.	The aircraft likely had a rapid carburettor ice accumulation whilst in operation. The SP's decision to contact the instructor before taking the corrective action likely delayed the response time which resulted in total engine power loss and the resultant forced landing.
3.4.	During the forced landing, the aircraft was unstable. The right wing struck the ground, followed by the nose landing gear which impacted the berm and, thus, the propeller struck the ground.
Probable Cause(s)	
An unsuccessful forced landing on an uneven surface after an in-flight engine stoppage due to a possible carburettor ice formation.	
Contributing Factor(s)	
None.	
Safety Action(s)	
None.	
Safety Message and/or Safety Recommendation/s	
None.	
About this Report	
<i>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 desktop 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.</i> <i>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.</i>	

Purpose
<i>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.</i>
Disclaimer
<i>This report is produced without prejudice to the rights of the AIID, which are reserved.</i>

This report is issued by:

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