LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10628						
Classification	Accident	**Date**	30 December 2025		**Time**	1000Z	
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Secunda Aerodrome (FASC), Mpumalanga Province	Place of Intended Landing	Secunda Aerodrome (FASC), Mpumalanga Province				
Place of Occurrence	On Runway 25 at Vlakspruit Farm Airstrip						
GPS Co-ordinates	Latitude	26°35'49.3" S	Longitude	29°17'18.8" E	Elevation	5 421 ft	
Aircraft Information							
Registration	ZS-ETL						
Make; Model; S/N	Cessna; 172H (Serial Number: 172-55746)						
Damage to Aircraft	Substantial	Total Aircraft Hours	16 339.1				
Pilot-in-command							
Licence Type	Student Pilot Licence (SPL)	Gender	Male	Age	18		
Licence Valid	No	Total Hours	52.1	Total Hours on Type	5.4		
Total Hours 30 Days	2.9	Total Flying on Type Past 90 Days	5.4				
People On-board	1 + 0	**Injuries**	0	**Fatalities**	0	**Other (on ground)**	0

What Happened

On Tuesday, 30 December 2025, a student pilot (SP) on-board a Cessna 172 aircraft registered ZS-ETL was conducting a training flight from Secunda Aerodrome (FASC), Mpumalanga province, with the intention of land at the same aerodrome. The flight was conducted under visual meteorological conditions (VMC) by day and in accordance with the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011, as amended.

The SP stated that a pre-flight inspection of the aircraft was conducted with no anomalies noted. The aircraft had a total 39 US Gallons of Avgas 100LL in the tanks. At approximately 0750Z, the SP opened the throttle to 2 600 revolutions per minute (rpm) and took off; the aircraft climbed to 6 500 feet (ft) and proceeded to the general flying area (GFA), south-east of FASC and cruising at a speed of 180 miles per hour (mph). From the GFA, the pilot flew to Vlakspruit Farm Airstrip to conduct a simulated engine failure exercise before returning to FASC. Whilst on finals for Runway 25 (on the asphalt runway), the SP opted to conduct a touch-and-go landing rather than a simulated engine failure exercise he had initially planned to perform. During landing, the aircraft bounced. It then touched down for the second time during which the pilot lost directional control and the aircraft veered off to the left of the runway.

The aircraft exited the runway and the nose wheel rolled over a grass-concealed ditch. Consequently, the nose gear strut broke and the propeller struck the ground. The aircraft nosed over. After the accident, the pilot disembarked from the aircraft; he was not injured. The propeller, nose section, wings, tail fin and the empennage were substantially damaged.

The accident occurred during daylight at Global Positioning System (GPS) co-ordinates determined to be 26°35'49.3" South 29°17'18.8" East, at an elevation of 5 421 feet (ft).

Figure 1: An aerial view of the approximate accident site (red pin). (Source: Google Earth)

Figure 2: The final position of the aircraft in the background. The yellow arrow on the top right corner shows the direction of travel. In the foreground is the nose wheel that is stuck in a ditch. (Source: Operator)

Bounced Landing (Source: Cessna 172 Pilot Operating Handbook [POH])

A bounced landing typically results from excessive sink rate, improper flare technique or excess airspeed at touchdown. When the aircraft contacts the runway firmly, the landing gear shock struts may compress and rebound, causing the aircraft to become airborne again. The POH emphasises that pilot-induced oscillations may occur if improper control inputs are applied after the initial touchdown, particularly aggressive pitch corrections. Attempting to force the aircraft onto the runway following a bounce may result in secondary hard touchdowns, increasing the risk of structural damage to the landing gear, propeller or airframe. Bounced landings are an indication of an unstable approach or improper flare, and pilots are expected to discontinue the landing if a safe touchdown cannot be assured.

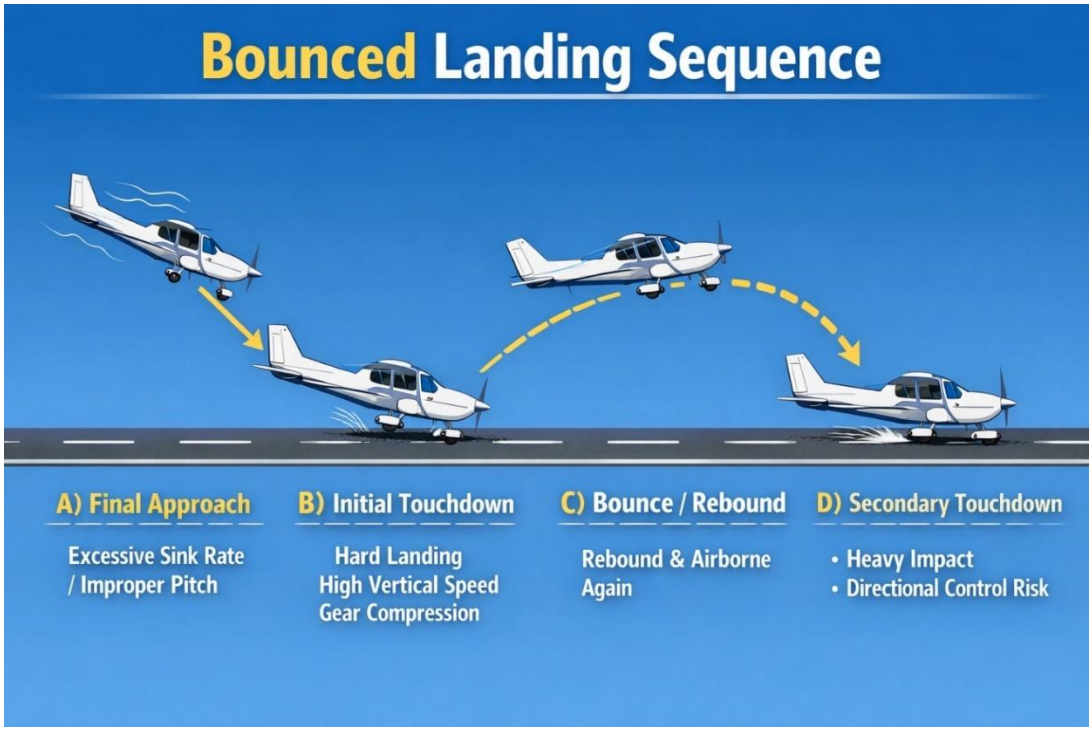


Figure 3: Illustration of a bounced landing sequence.

Sequence of a Bounced Landing

(A) Final Approach

The aircraft approaches the runway with excessive airspeed, insufficient flare or improper pitch attitude. Gusty or turbulent conditions may further destabilise the approach.

(B) Initial Touchdown

The aircraft contacts the runway with a high rate of descent or nose-low attitude. The landing gear compresses rapidly, storing energy in the shock struts.

(C) Bounce/Rebound

The compressed landing gear rebounds, lifting the aircraft back into the air. Pilot workload increases significantly at this point, particularly if inappropriate or delayed control inputs are applied.

(D) Secondary Touchdown

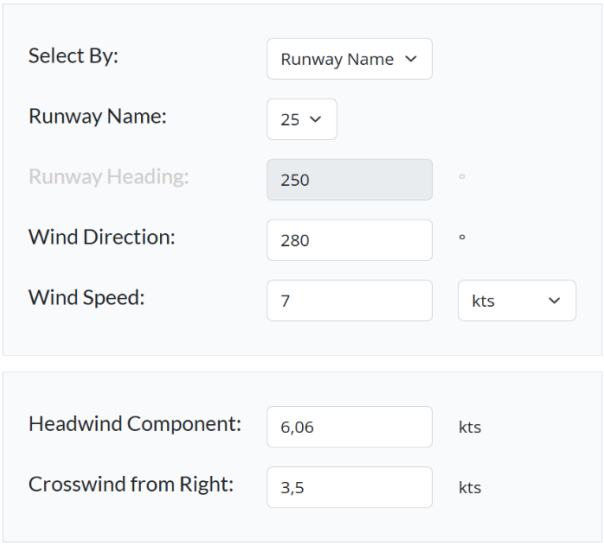
The aircraft touches down again, often with reduced energy management and alignment. Structural loads may exceed those of the initial touchdown, increasing the risk of landing gear damage, runway excursion or loss of directional control.

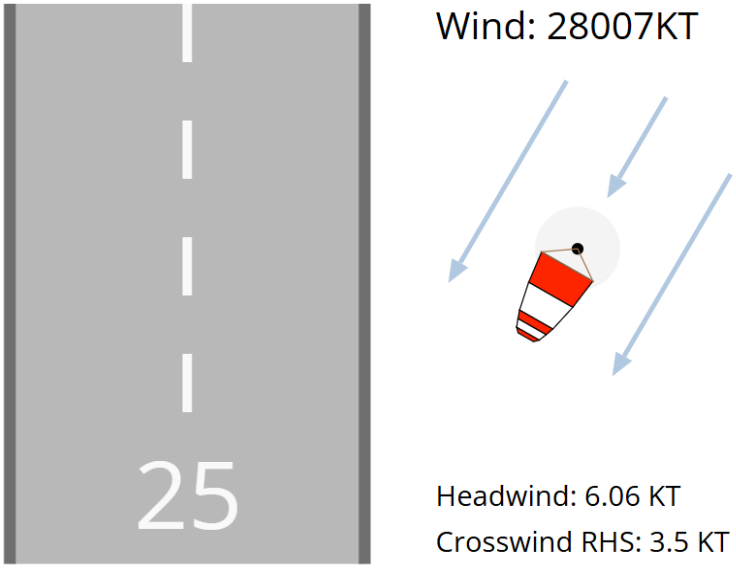
Meteorological Information

The weather information entered in the table below was obtained from the Meteorological Aerodrome Report (METAR) that was issued by the South African Weather Service (SAWS) recorded at Ermelo Airport (FAEO) weather station on 30 December 2025 at 1000Z. The accident site was approximately 49 nautical miles (nm) from FAEO.

Wind Direction	240°	Wind Speed	6 kts	Visibility	9999m
Temperature	23° C	Cloud Cover	BKN	Cloud Base	2500
Dew Point	15° C	QNH	1028hPa		

Crosswind Calculation Based on the Weather Results





Based on the POH, the aircraft was certified to safely handle direct crosswinds of up to 15 miles per hour (mph) (13 knots). The crosswind component was approximately 3.5 knots, and it was well within the operational safety limits.

Civil Aviation Regulations, 2011. Part 61, Subpart 2:

Validity of a SPL:
61.02.4 (*1) A SPL is valid for a period of 2 years from the date of issue, provided the annual currency fees are paid.*
(2) The holder of a valid SPL may not exercise the privileges of that licence unless he or she—
(a) is in possession of a valid medical certificate, issued to him or her in terms of Part 67; and
(b) has submitted a copy of the medical certificate to the licensing authority, as required in regulation 61.01.6 (6), in the event that the aviation medical examiner is unable to submit electronic data to the Director."

In terms of the regulation, "the Student Pilot Licence (SPL) is valid for a period of two years from the date of issue, subject to the annual currency fees being paid". At the time of the accident, the SP's licence had expired on 5 November 2025. The SP contravened Part 61.02.4 (1) of the CAR.

Findings

1. Personnel Information

1.1. The SP had a Student Pilot Licence (SPL) that was initially issued by the Regulator (SACAA) on 3 August 2023. The licence was reissued on 6 November 2024 with an

expiry date of 5 November 2025. The SP's licence had expired at the time of the accident; thus, he contravened Part 61.02.4 (1) of the CAR. The SP had accumulated a total of 52.1 flight hours of which 5.4 were on the aircraft type.

1.2. The SP had a Class 2 aviation medical certificate that was issued on 10 July 2023 and valid until 31 July 2028 with no restrictions.

2. Aircraft Information

2.1. The latest mandatory periodic inspection (MPI) of the aircraft was certified on 6 November 2025 at 16 257.3 airframe hours. The aircraft had accrued 81.3 hours since the said inspection.

2.2. The aircraft was issued a Certificate of Release to Service (CRS) on 6 November 2025 at 16 257.3 airframe hours with an expiry date of 6 November 2026 or at 16 357.3 airframe hours, whichever occurs first.

2.3. The aircraft was maintained by an approved aircraft maintenance organisation (AMO). The AMO had an AMO Certificate that was issued on 18 February 2025 with an expiry date of 28 February 2026.

2.4. The aircraft had a Certificate of Airworthiness (C of A) that was initially issued on 13 February 1970. The latest C of A had an expiry date of 28 February 2026.

2.5. The aircraft's Certificate of Registration (C of R) was issued to the present owner on 12 December 2025.

3. Meteorological Information

3.1. The prevailing headwind and right crosswind components at the time of the occurrence were well within the aircraft's POH-specified crosswind limitations and did not exceed the operational safety limits.

4. Organisational Information

4.1. The Approved Training Organisation (ATO) had a valid ATO Certificate that was initially issued on 15 July 2024 with an expiry date of 31 July 2029.

Probable Cause(s)
Unstable approach which resulted in the aircraft bouncing and the pilot losing directional control of the aircraft after touching down for the second time.
Contributing Factor(s)
Lack of experience.
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
This report is produced without prejudice to the rights of the AIID, which are reserved.

This report is issued by:

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