



LIMITED ACCIDENT INVESTIGATION REPORT
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Reference Number	CA18/2/3/10077						
Classification	Accident	Date	16 November 2021	Time	1330Z		
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Wonderboom Aerodrome (FAWB)		Place of Intended Landing	Wonderboom Aerodrome (FAWB)			
Place of Accident	Runway 29, FAWB						
GPS Co-ordinates	Latitude	25°39'19.11" S	Longitude	028°13'16.81" E	Elevation	4 095 ft	
Aircraft Information							
Registration	ZS-JBO						
Make/Model	Cessna 172M						
Damage to Aircraft	Substantial		Total Aircraft Hours	20 332.3			
Pilot-in-command							
Licence Valid	Yes		Gender	Male		Age: 20	
Licence Type	Student Pilot Licence (SPL)						
Total Hours on Type	Not available		Total Flying Hours	80.4			
People On-board	1 + 0	Injuries	0	Fatalities	0	Other (On Ground)	0
What Happened							
<p>The student pilot, who was the sole occupant on-board the aircraft took off from Wonderboom Aerodrome (FAWB) at 1248Z on a solo navigational flight. Due to extremely turbulent conditions, the pilot decided to return to FAWB. He stated that he was cleared for landing Runway 29 at FAWB by air traffic control (ATC). He selected 20° of wing flaps for landing. The prevailing wind condition was light and variable at the time. The student pilot, however, stated that the wind was blowing at 15 knots (kt), but he did not indicate from which direction. The student pilot landed hard, but he was able to vacate the runway unassisted. The student pilot was not injured during the accident sequence. The meteorological routine aerodrome report (METAR) at 1200Z was as follows; FAWB 161200Z VRB03KT 9999 FEW030 33/13 Q1014=. Surface wind: Variable at 3kt, temperature: 33°C, dew point: 13°C and the barometric pressure at sea level was 1014 hectopascal (hPa). The METAR at 1500Z was as follows: FAWB 161500Z 30004KT 9999 FEW030 33/11 Q1011=. From both METARs, the temperature was the same at 33°C, with light wind conditions prevailing. There was no METAR available between these two times.</p>							



Figure 1: The nose wheel rim sustained damage during hard landing.

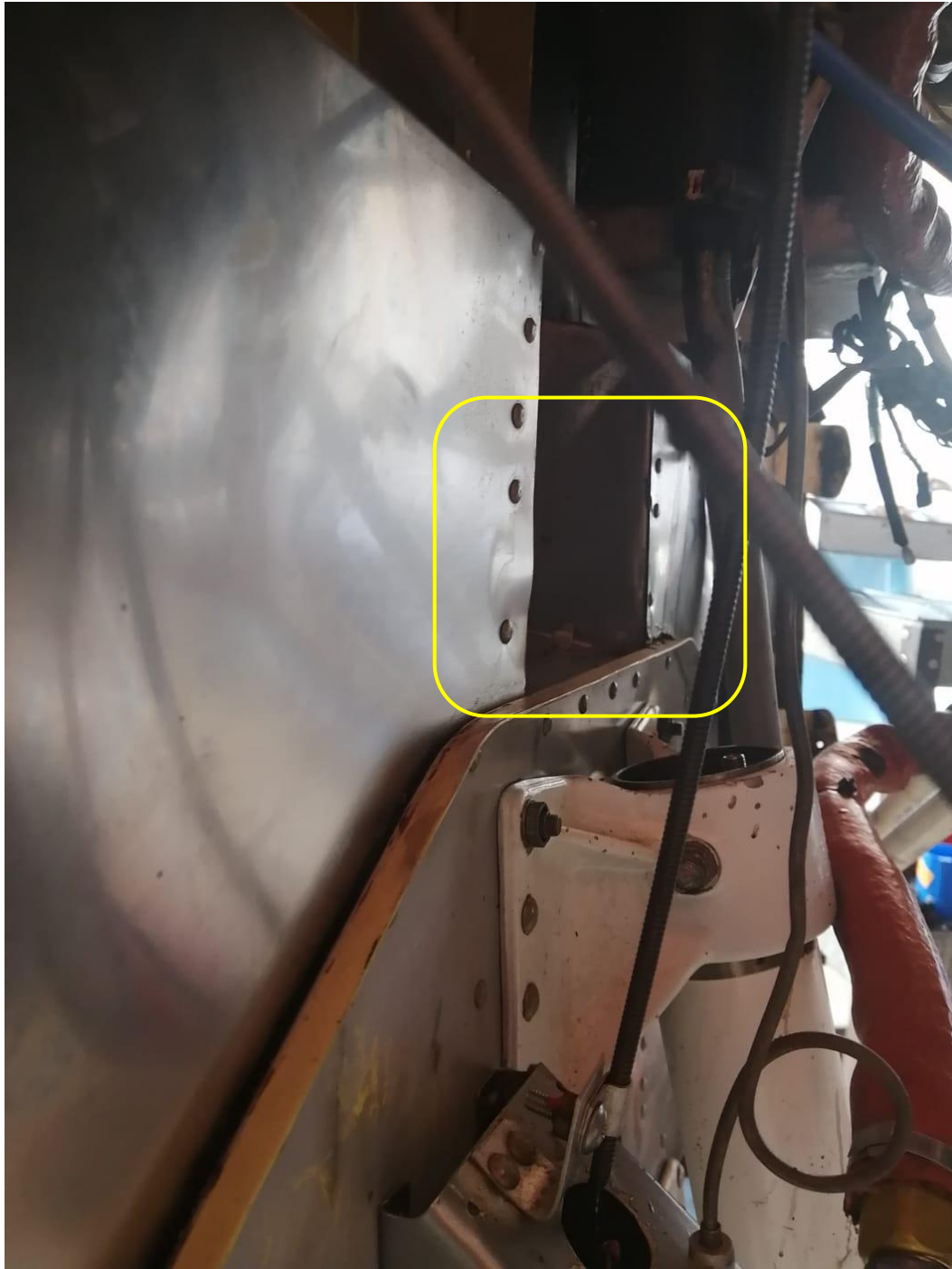


Figure 2: Deformation visible on the firewall.

What was found:

- (i) No mechanical malfunction with the aircraft or its engine was noted that could have contributed or have caused the accident.
- (ii) The pilot was the sole occupant on-board, thus, the weight and balance was not compromised.
- (iii) This was a training flight conducted under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011, which was accordingly authorised by the aviation training organisation (ATO).

- (iv) The ATO had an ATO certificate that was issued by the South African Civil Aviation Authority (SACAA) on 22 January 2021 with an expiry date of 31 January 2026.
- (v) The student pilot questionnaire, which was requested from the ATO, lacked vital information. The AIID investigator was advised that the student pilot was not available.

Probable cause

The student pilot used incorrect landing technique, which resulted in a hard landing.

Safety Action

Following two hard landing accidents on the same day from the same ATO, the institution issued a safety notice on 16 November 2021 which calls for all student pilots, pilots under training as well as all pilots who want to hire and fly an aircraft (from the ATO) to be subjected to a dual check (of at least three circuits) by a flight instructor before their next flight.

Safety Message and/or Safety Recommendations

None.

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

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**