

Section/division Accident and Incident Investigations Division

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LIMITED OCCURRENCE INVESTIGATION REPORT - FINAL

Form Number: CA 12-57

Reference CA18/2/3/10434 Number Classification Accident Date 20 March 2024 Time 0740Z Type of Operation Training (Part 141) Location Place of Lanseria International Airport Lanseria International Airport Place of Intended Landing Departure (FALA), Gauteng Province (FALA), Gauteng Province Place of On Runway 07 at Lanseria International Airport (FALA), Gauteng Province Occurrence GPS Co-ordinates Latitude 26°56'19" S Longitude 027°55'34" E Elevation 4 520 ft Aircraft Information ZS-MLF Registration Piper Cherokee, PA-28 -140 (Serial Number: 28-20248) Make; Model; S/N Damage to Aircraft Substantial **Total Aircraft Hours** 9882.1 Pilot-in-command Licence Student Pilot Licence (SPL) Gender Female 20 Age Type Licence Total Yes 59 Total Hours on Type 59 Valid Hours Total Flying Hours on Type Past **Total Hours** 6.7 28.5 Past 30 Days 90 Days 0 People On-board 1 + 0**Injuries** 0 **Fatalities** Other (on ground) 0 What Happened

On Wednesday morning, 20 March 2024, a student pilot on-board a Piper PA-28-140 Cherokee aircraft with registration ZS-MLF took off on a solo consolidation flight from Lanseria International Airport (FALA) in Gauteng province with the intention to return to the same aerodrome. Visual meteorological conditions (VMC) by day prevailed at the time of the flight which was conducted under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011 as amended.

The Approved Training Organisation's (ATO's) chief flight instructor (CFI) reported that the student pilot was conducting her initial solo flight when the accident occurred. She took off from Runway 07 without incident and flew a circuit. The air traffic control officer (ATCO cleared the student pilot to conduct a touch-and-go landing exercise on Runway 07; at the time, the wind speed was 120° at 10 knots (kts). The CFI stated that the aircraft appeared stable on finals, however, after touchdown and during the landing roll, it veered off to the right and exited the runway and onto the grass area. The nose gear strut failed, and the propeller struck the ground before the aircraft stopped. The ATCO activated the crash alarm and the Aircraft Rescue and Firefighting (ARFF) personnel responded to the scene. The student pilot vacated the aircraft unharmed. The aircraft sustained substantial

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damage. Post-accident and after reviewing the pilot's questionnaire, it was found that the landing speed was between 85 miles per hour (MPH) and 90MPH.



Figure 1: Aerial view of the accident site. (Source: Google Earth)



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

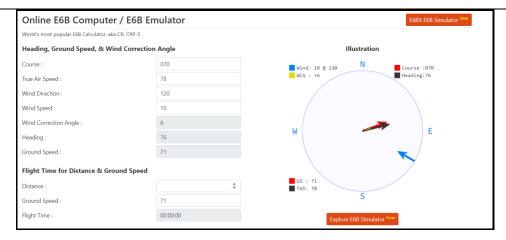


Figure 3: Online E6B computer. (Source: <u>E6B Calculator | Flight Computer with Illustrations | Online Aviation</u>

Calculators (e6bx.com)

According to the E6B data, the wind was blowing from the right.

The information below is an extract from the Pilot's Operating Handbook (POH)

APPROACH AND LANDING	
Fuel selector Seat backs Belts/harness Electric fuel pump Mixture Flaps Seat backs (1 Air conditioner Trim to 86 MPH IAS (75 KTS IAS) Final approach speed (flaps 40°)	fasten

Figure 4: Approach and landing procedure. (Source: Piper Cherokee POH)

Discontinuance of Flight Training Part 61.02.7

[TS <u>61.02.7</u> inserted by the Director on 6 August 2016 through SA-CATS 2/2016 w.e.f. 28 November 2016.]

- 1. Failure to be recommended for solo flight after 30 hours (Aeroplane) or 40 hours (Helicopter) of dual flight training
- (1) A student pilot who fails to be recommended for solo flight after completing 30 (A) hours or 40 (H) hours of dual flight training, shall undergo a flight assessment by the CFI of the ATO where he or she is receiving flight training.
- (2) If the CFI cannot recommend solo flight for the student, then the following shall apply:
 - (a) The student pilot shall be informed in writing that a potential safety risk has been identified and that CAR 61.02.7 may be brought into effect. The student shall acknowledge receipt of the letter.
 - (b) A training program of up to 5 hours dual flight instruction shall be designed and implemented to address the knowledge, skills and attitude of the student pilot.
 - (c) Once the additional 5 hours of dual flight instruction are flown (35 (A) or 45 (H)), a recommendation must be made by the responsible flight instructor for solo flight. If a recommendation cannot be made then the student must be referred for assessment by a DFE appointed for this purpose by the Director.

Findings

- 1. The pilot was initially issued a Student Pilot Licence (SPL) by the South African Civil Aviation Authority (SACAA) on 1 September 2023 with an expiry date of 31 August 2024. The pilot had flown a total of 59 hours on the aircraft type.
- 2. The pilot had the aircraft type endorsed on her licence. She had a valid Class 2 aviation medical certificate that was issued on 22 August 2023 with an expiry date of 31 August 2028.

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- 3. The aircraft's Certificate of Registration (C of R) was issued to the present owner on 29 January 2021.
- 4. The aircraft had a valid Certificate of Airworthiness (C of A) that was issued on 30 March 2022 with an expiry date of 31 March 2025.
- 5. The aircraft was issued a Certificate of Release to Service (CRS) on 13 March 2024 at 9872.40 hours with an expiry date of 13 March 2025 or at 9972.40 hours, whichever occurs first. There were no defects recorded in the flight folio at the time of the flight.
- 6. The training school had a valid Approved Training Organisation (ATO) Certificate that was issued on 15 February 2022 with an expiry date of 28 February 2027.
- 7. The aircraft approached and landed at a speed of between 85 to 90 MPH which was 19 to 24 MPH higher than the required speed of 66 MPH.
- 8. The ATO failed to apply discontinuance of flight training in terms of Part 61.02.7.

Probable Cause

The aircraft's speed was high during the approach and landing phase which resulted in loss of control before the aircraft veered off the runway.

Contributing Factor

Incorrect approach speed as it was too high.

Safety Action(s)

None.

Safety Message / Safety Recommendation

Safety message: In the interest of safety, pilots are advised to always be vigilant at critical phases of flight such as take-offs and landings to prevent injury and/or damage to property.

Safety recommendations to the ATOs: Always adhere to the requirements of the CARs 2011 as amended by having the student pilot evaluated by the chief flight instructor (CFI) and designated flight examiner (DFE).

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.

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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