SOUTH AFRICAN CIVIL AVIATION AUTHORITY

Section/division **Accident and Incident Investigations Division** Form Number: CA 12-57

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10478						
Classification	Accident	**Date**	15 August 2024		**Time**	1050Z	
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Lanseria International Airport (FALA), Gauteng Province	Place of Intended Landing	Lanseria International Airport (FALA), Gauteng Province				
Place of Occurrence	Runway 25 at Lanseria International Airport (FALA)						
GPS Co-ordinates	Latitude	25°55'55.00"S	Longitude	27°56'6.74"East	Elevation	4 298 ft	
Aircraft Information							
Registration	ZU-FVU						
Make; Model; S/N	Sling Aircraft Factory, Sling 2 (Serial Number: 063)						
Damage to Aircraft	Minor	Total Aircraft Hours	465.4				
Pilot-in-command							
Licence Type	Student Pilot Licence (SPL)	Gender	Female	Age	21		
Licence Valid	Yes	Total Hours	70	Total Hours on Type	63.2		
Total Hours 30 Days	2.2	Total Flying on Type Past 90 Days	7.8				
People On-board	1+0	**Injuries**	0	**Fatalities**	0	**Other (on ground)**	0

What Happened

On Thursday, 15 August 2024, a student pilot (SP) on-board a Sling 2 aircraft with registration ZU-FVU was on a training flight from Lanseria International Airport (FALA) in Gauteng province, with the intention to land back at same airport. 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 she took off to Magaliesburg general flying area (GFA) for an hour-building flight. The flight from FALA to the GFA was uneventful. Upon her return to FALA, the air traffic control (ATC) officer could not clear her to immediately join the circuit due to the congested airspace at the time. The SP was instructed to orbit before joining the circuit. After a while, the SP was directed to join a circuit and to land on Runway 25. The SP stated that the approach speed was approximately 75 knots (kts) with the flaps extended to 40 degrees; the main wheels touched down on the runway and the aircraft bounced. During the second touchdown, the aircraft landed with the nose wheel first and the nose gear strut collapsed; consequently, the propeller blades struck the runway surface. The aircraft sustained minor damage. The SP vacated the aircraft unharmed.

The accident occurred during daylight at Global Positioning System (GPS) co-ordinates determined to be 25°55'55.00"South 27°56'6.74"East, at an elevation of 4 298 feet (ft).

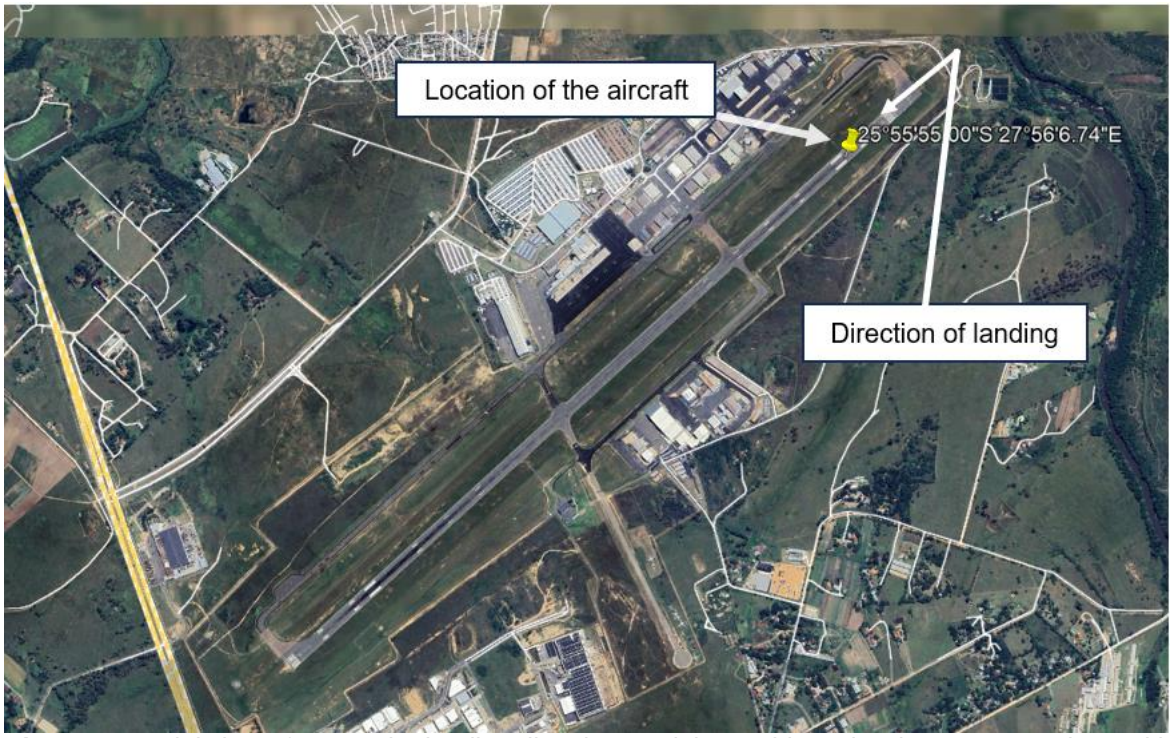

Figure 1: Aerial view of FALA, the landing direction, and the accident site. (Source: Google Earth)

Figure 2: The aircraft as it came to a stop. (Source: ARFF)

Figure 3: The damaged propeller. (Source: ARFF)

Normal Landing Procedure (Source: Sling 2 Pilot Operating Handbook)

Aircraft component	**Action**
1. Throttle	*As required*
2. Controls	*Flare to minimum flying speed, touch-down on main wheels.*
3. Nose wheel	*Gently lower to the ground*
4. Apply brakes	*As required (after the nose wheel touch-down)*

Weather Information

The weather information in the table below was issued by the South African Weather Service (SAWS) for FALA on 15 August 2024.

FALA *151100Z 2500KT 200V320 CAVOK 23/M05 Q1027 NOSIG=*

Wind Direction	250°	Wind Speed	0kts	Visibility	9999m
Temperature	23°C	Cloud Cover	Nil	Cloud Base	Nil
Dew Point	5°C	QNH	1027hPa		

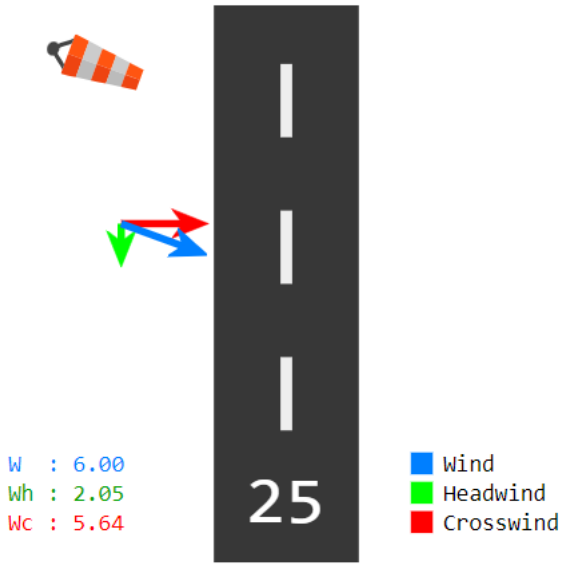

Figure 4: The crosswind component as per the weather report. (Source: https://e6bx.com)

- The weather profile indicates a constant wind speed and direction at the surface with no low-level wind shear turbulence.
- The crosswind component for the Sling 2 is 15 knots (kts). The crosswind component refers to the maximum crosswind velocity an aircraft can effectively withstand during take-off and landing.

Findings

Pilot

1. The pilot was initially issued a Student Pilot Licence (SPL) on 24 May 2022. The SPL was reissued on 4 June 2024 with an expiry date of 3 June 2025. The aircraft type was endorsed on the SP's licence. A Class 2 medical certificate was issued to the SP on 17 February 2022 with an expiry date of 16 February 2027.

Aircraft

2. The aircraft's Certificate of Registration (C of R) was issued to the current owner on 19 October 2019. The Authority to Fly (ATF) was initially issued on 23 June 2017. The ATF was reissued on 8 May 2024 with an expiry date of 30 June 2025.

3. The last annual inspection was certified on 25 July 2024 at 5 471.5 total airframe hours. At the time of the accident flight, the aircraft had a total of 5 535.5 airframe hours. The aircraft accrued 64 hours since the last annual inspection.

4. The aircraft was issued a Certificate of Release to Service (CRS) on 25 July 2024 at 5 471.5 airframe hours with an expiry date of 24 July 2025 or at 5 571.5 airframe hours, whichever occurs first.

5. There were no defects recorded in the flight folio at the time of the flight.

6. Neither the weather nor the runway was a factor in this accident.

Probable Cause(s)

Unstable approach which led to a bounce and landing with the nose wheel first; consequently, the nose gear strut collapsed.

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 investigate 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 issued by:
Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa