

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10211						
Classification	Accident	Date	23 August 2022		Time	0949Z	
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Port Elizabeth International Airport (FAPE), Eastern Cape Province		Place of Intended Landing		Port Elizabeth International Airport (FAPE), Eastern Cape Province		
Place of Occurrence	On Runway 08 at Port Elizabeth International Airport (FAPE)						
GPS Co-ordinates	Latitude	33° 59' 20.3" S	Longitude	025° 36' 34.1" E	Elevation	226ft	
Aircraft Information							
Registration	ZU-FUS						
Make; Model; S/N	The Airplane Factory; Sling 2 (Serial Number: 080)						
Damage to Aircraft	Substantial			Total Aircraft Hours	6652.3		
Pilot-in-command							
Licence Type	Student Pilot Licence (SPL)		Gender	Male		Age	21
Licence Valid	Yes	Total Hours	23.2		Total Hours on Type	23.2	
Total Hours 30 Days	10.8		Total Flying on Type Past 90 Days		10.8		
People On-board	1 + 0	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
<p>On 23 August 2022, a student pilot on-board a Sling 2 aircraft with registration ZU-FUS took off on a training circuit flight from Port Elizabeth International Airport (FAPE) in the Eastern Cape province. Visual meteorological conditions (VMC) by day prevailed at the time of the flight and no flight plan was filed. The aircraft was operated under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>According to the flight instructor, they initially took off from FAPE for dual circuit training, which consisted of five exercises. Thereafter, the student pilot took off on a solo flight in which he conducted two circuits successfully. On the third circuit, the aircraft approached Runway 08 at an airspeed of 70 knots. The student pilot applied too much back pressure on the control column and, as a result, the aircraft touched down approximately 837 metres (m) from the runway threshold at a speed of 50 knots. Subsequently, the aircraft bounced, followed by a hard landing with the nose gear first. The nose gear bent backwards and the propeller made contact with the ground. The student pilot was not injured during the accident sequence.</p>							



Figure 1: The aircraft as it came to rest. (Source: Pilot)



Figure 2: The bent nose gear and the damaged propeller. (Source: Pilot)

According to the South African Weather Service (SAWS), the weather report that was issued at 0900Z for the area was as follows:

Wind Direction	040°	Wind Speed	12 knots	Visibility	9999
Temperature	16°C	Cloud Cover	Nil	Cloud Base	Nil
Dew Point	12°C	QNH	1022 hPa		

The Significant Weather (SigWX) report showed that *fine weather conditions prevailed at the time of flight with no clouds and the wind speed of 10 to 15 knots below flight level 025 (FL025). However, there was moderate turbulence forecasted below FL045 at both 0900Z and 1200Z weather information, probably due to wind speed changes above FL025.* Although the weather conditions did not play a role in this accident, there was a slight crosswind component of approximately 7 knots.

Below is an extract from the Airplane Factory Sling 2 Pilot's Operating Handbook (POH):

4.12 Normal landing

4.12.1 Before landing

- 1. Propeller (if applicable) - AUTO / TO*
- 2. Throttle - as required*
- 3. Airspeed - \geq 65 KIAS*
- 4. Wing flaps - extend as required*
- 5. Trim - as required*
- 6. Brakes - off (carefully check that the brake stop valve is off).*

Findings

1. The pilot was initially issued the Student Pilot Licence (SPL) on 4 July 2021 with an expiry date of 25 July 2023.
2. The pilot was issued a Class 2 aviation medical certificate on 18 June 2021 with an expiry date of 30 June 2026.
3. The pilot had flown 10.8 hours during the past 90 days. The pilot had a total of 23.2 hours on the aircraft type.
4. The aircraft was operated under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011 as amended.
5. The current owner of the aircraft was issued a Certificate of Registration (C of R) on 31 August 2012.
6. The aircraft had a valid Certificate of Release to Service (CRS) that was issued on 18 August 2022 at 6643.2 hours with an expiry date of 17 August 2023 or at 6743.2 hours, whichever comes first.
7. The last mandatory periodic inspection (MPI) on the aircraft was carried out on 18 August 2022 at 6643.2 hours. At the time of the accident, the aircraft had 6652.3 hours. The aircraft was flown a further 9.1 hours since the last MPI.
8. The aircraft had a valid Authority to Fly (ATF) which was initially issued on 8 February 2017. The latest re-issued ATF had an expiry date of 28 February 2023.
9. The aircraft maintenance organisation (AMO) was issued an AMO approval certificate on 12 May 2022 with an expiry date of 30 April 2023.
10. The Approved Training Organisation (ATO) had an ATO certificate that was initially issued by the Regulator on 13 November 2012. The latest ATO certificate had an expiry date of 31 December 2022.

Probable Cause

The aircraft was unstable on approach, which led to a bounce and a hard landing; as a result, the nose gear bent backward.

Contributing Factor

Lack of experience.

Safety Action(s)

None.

Safety Message and/or Safety Recommendation/s
None.
About this Report
<p><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 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.</i></p> <p><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></p>
Purpose
<p><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></p>
Disclaimer
<p><i>This report is produced without prejudice to the rights of the AIID, which are reserved.</i></p>

This report is issued by:

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