

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/3/2/1439						
Classification	Serious Incident	Date	2 February 2024		Time	0620Z	
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Stellenbosch Airfield (FASB), Western Cape Province		Place of Intended Landing		Stellenbosch Airfield (FASB), Western Cape Province		
Place of Occurrence	Runway 19 FASB						
GPS Co-ordinates	Latitude	33°58'50.41"S	Longitude	18°49'20.36"E	Elevation	355 feet	
Aircraft Information							
Registration	ZU-EJB						
Make; Model; S/N	Foxbat (Serial Number: 161)						
Damage to Aircraft	Minor			Total Aircraft Hours	2067.2		
Pilot-in-command							
Licence Type	Student Pilot Licence (SPL)		Gender	Male		Age	30
Licence Valid	Yes	Total Hours	28.8		Total Hours on Type	28.8	
Total Hours 30 Days	2.8		Total Flying on Type Past 90 Days		28.8		
People On-board	1+1	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
<p>On Friday, 2 February 2024, a flight instructor and a student pilot on-board a Foxbat aircraft with registration ZU-EJB were engaged in a training flight at Stellenbosch Airfield (FASB) in the Western Cape province when the serious incident occurred. The pair was conducting touch-and-go landing and circuit exercises towards the student pilot's solo consolidation. The flight was conducted under visual meteorological conditions by day and under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>According to the instructor, the pair conducted a pre-flight inspection, and no anomalies were detected. Thereafter, they completed two circuits and touch-and-go landings which were uneventful. The instructor was satisfied with the student pilot's execution of the exercises; he decided that they conduct a full-stop landing after the third circuit so that he can disembark from the aircraft to allow the student pilot to continue with the training exercises. After the instructor had disembarked from the aircraft, the student pilot took off solo for the fourth circuit; his approach was normal and stable, followed by a smooth touchdown and a landing roll on Runway (RWY) 19 (which is 840 metres long and 16 metres wide). During the landing roll after the halfway mark towards the end of the runway, the nose gear strut bent to the right which caused the aircraft to veer off to the left of the runway. The aircraft came to a stop a few metres beyond the edge of the runway. The student pilot disembarked from the aircraft uninjured. The aircraft sustained damage to the nose landing gear strut which was slightly bent.</p>							



Figure 1: The damaged nose wheel strut. (Source: Operator)



Figure 2: The close-up view of the damaged nose wheel strut. The black pipe is the fuel vent pipe. (Source: Operator)

Following the flight, during the investigation of the incident, it came to our attention that there may have been an unreported technical issue that was not officially reported or recorded in the aircraft's flight folio as per the required procedures as laid down in the TPM.

Figure 3: The statement from the flying school after the serious incident. (Source: Operator)



Figure 4: The fuel vent pipe. (Source: Operator)

Findings

1. The student pilot was issued a Student Pilot Licence (SPL) on 26 April 2023 with an expiry date of 25 April 2024. His Class 2 medical certificate was issued on 24 January 2023 with an expiry date of 20 January 2028 with no restrictions.
2. The aircraft's last mandatory periodic inspection (MPI) was conducted on 20 October 2023 at 1984.2 airframe hours, after which a Certificate of Release to Service (CRS) was issued with an expiry date of 19 October 2024 or at 2084.2 airframe hours, whichever comes first.
3. The Certificate of Airworthiness (C of A) was initially issued on 4 June 2019. The C of A was reissued on 6 June 2023 with an expiry date of 30 June 2024.
4. The aircraft's landing gear is inspected every 100 hours intervals for fatigue cracks, deformation and play.
5. The Certificate of Registration (C of R) was issued to the present owner on 13 March 2023.
6. According to the incident report from the training school, the aircraft was involved in an occurrence that led to a bounce, and which was neither reported to the training school nor recorded in the flight folio. During this occurrence, the nose wheel strut sustained a crack which continued to develop each time the aircraft was flown. This is until the day of the serious incident (this report) when the nose wheel strut gave in and bent to the right. This caused the aircraft to veer off to the left whilst rolling on RWY 19 at FASB.

Probable Cause(s)

The nose gear strut bent which rendered the aircraft uncontrollable; it veered off to the left of RWY 19 during the landing roll.

Contributing Factor(s)

An unreported occurrence before the flight.

Safety Action(s)
The training school has developed a comprehensive action plan aimed at instructors and students to comply with the school's Training and Procedure Manual (TPM) and all relevant operating procedures.
Safety Message and/or Safety Recommendation/s
None.
About this Report
<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>
<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>
Purpose
<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>
Disclaimer
<i>This report is produced without prejudice to the rights of the AIID, which are reserved.</i>

**This report is issued by:
Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**