

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10082						
Classification	Accident	Date	9 October 2022		Time	1015Z	
Type of Operation	Private (Part 94)						
Location							
Place of Departure	Wonderboom Aerodrome (FAWB), Gauteng Province		Place of Intended Landing	Kitty Hawk Aerodrome (FAKT), Gauteng Province			
Place of Occurrence	Right-side of Runway 01 at Kitty Hawk Aerodrome						
GPS Co-ordinates	Latitude	25° 51' 36.27" S	Longitude	028° 27' 1.61" E	Elevation	4586ft	
Aircraft Information							
Registration	ZU-IBE						
Make; Model; S/N	Jabiru J170 (Serial Number: 358)						
Damage to Aircraft	Substantial		Total Aircraft Hours	2898			
Pilot-in-command							
Licence Type	Private Pilot Licence (PPL)		Gender	Male		Age	21
Licence Valid	Yes	Total Hours	126.8		Total Hours on Type	1.4	
Total Hours 30 Days	0.8		Total Flying on Type Past 90 Days	0.6			
People On-board	1 + 1	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
<p>On 9 October 2022 at approximately 0745Z, a pilot and a passenger on-board a Jabiru J170 aircraft with registration ZU-IBE took off on a private flight from Wonderboom Aerodrome (FAWB) with the intention to land at Kitty Hawk Aerodrome (FAKT), both in Gauteng province. The flight was conducted in visual meteorological conditions (VMC) by day and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>The pilot stated that the pre-flight inspection showed no anomalies. The flight to FAKT was uneventful. Upon reaching FAKT, the pilot joined from the north at 6100 feet (ft) and positioned the aircraft for a right-hand circuit. The pilot then carried out the down-wind checks; and extended his down-wind route to give himself a longer final approach. Whilst on the base leg with a speed of approximately 75 knots (kts), the pilot observed that there was a right crosswind, indicated by the windsock at the aerodrome. On final approach, the aircraft was at approximately 65 kts. The pilot rounded out over the threshold of Runway 01. The aircraft floated approximately 150 metres (m) from the threshold of Runway 01 before landing with the right wheel first to accommodate the crosswind. The remaining runway length was 748m; the aircraft needed 468m to come to a safe stop. The pilot then applied the brakes and felt the aircraft decelerating. The pilot noticed that when the aircraft was rolling past the club house, it had not decelerated sufficiently. He then elected to</p>							

further slowdown the aircraft by steering the aircraft over to the grass area next to the runway. The pilot turned the aircraft to the right to avoid rolling into trees. However, the nose landing gear broke off upon touching the grass surface and the aircraft came to a full stop approximately 1m from the right of Runway 01. The pilot shut down the engine and exited the aircraft unassisted together with the passenger. They were both not injured.



Figure1: The aircraft at the accident site. (Source: Pilot)

- The weather information below was obtained from the South African Weather Service (SAWS) for Irene Met Upper Air Research Centre (FAIR) weather station on 9 October 2022 at 1000Z. FAIR is the closest weather station to Kitty Hawk Aerodrome.

Wind Direction	320°	Wind Speed	7 kts	Visibility	m
Temperature	30°C	Cloud Cover	CAVOK	Cloud Base	CAVOK
Dew Point	2°C	QNH	1027hPa		

- The weather information below was obtained from the pilot questionnaire and was issued for FAKT.

Wind Direction	310°	Wind Speed	5kts	Visibility	9999m
Temperature	29°C	Cloud Cover	CAVOK	Cloud Base	CAVOK
Dew Point	8°C	QNH	-		



Figure 2: Damage to the aircraft. (Source: Pilot)



Figure 3: The aircraft as it came to rest. (Source: Pilot)

Findings

- The pilot was issued a Private Pilot Licence (PPL) on 17 September 2019 with an expiry date of 31 December 2022. His Class 2 medical certificate was issued on 7 January 2019 with an expiry date of 31 January 2024 with no restrictions.
- The last mandatory periodic inspection (MPI) prior to the accident flight was carried out on 2 July 2022 at 2826.7 hours. The aircraft was issued a Certificate of Release to Service (CRS) on 30 August 2022 with an expiry date of 29 August 2023 or at 2927.2 hours, whichever occurs first. The aircraft had accumulated 71.3 hours since the last MPI.
- The pilot had a total of 126.8 hours flying experience, of which 1.4 hours were on the aircraft type.
- The Jabiru J170 Pilot's Operating Handbook (POH) recommends 65kts for the best glide for approach speed. This means that the pilot was flying at the recommended approach speed on

final approach. The runway length is 898m. According to the POH, the aircraft needed 468m to land. The aircraft landed 150m deep from the threshold, with 748m remaining, which was sufficient to come to a safe stop.

- The maximum allowable crosswind velocity is 14kts according to the POH. The crosswind was approximately 5.36kts, which meant that the wind conditions were within the capabilities of the aircraft.

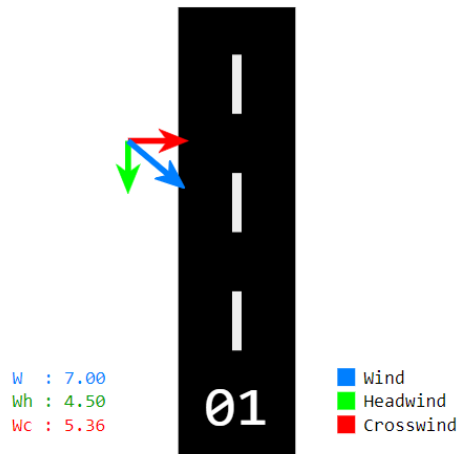


Figure 4: Wind components on the day. (Source: e6bx.com/wind-components/)

Probable Cause(s)

The pilot landed deep, which resulted in the pilot steering the aircraft onto the grass area; the nose gear broke off in the process.

Contributing Factor(s)

The aircraft was unstable on approach.

Safety Action(s)

None.

Safety Message and/or Safety Recommendation/s

None.

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.

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**