

**LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL**

<b>Reference Number</b>	CA18/2/3/10400						
<b>Classification</b>	Accident	<b>Date</b>	13 December 2023	<b>Time</b>	1510Z		
<b>Type of Operation</b>	Private (Part 94)						
<b>Location</b>							
Place of Departure	Rhino Park Airfield, Gauteng Province		Place of Intended Landing	Rhino Park Airfield, Gauteng Province			
Place of Occurrence	Rhino Park Airfield Runway 09						
GPS Co-ordinates	Latitude	25°49'58.49" S	Longitude	028°32'39.11" E	Elevation	4 757 feet	
<b>Aircraft Information</b>							
Registration	ZU-TSM						
Make; Model; S/N	Jabiru; J430 (Serial Number: 989)						
Damage to Aircraft	Substantial		Total Aircraft Hours	71.7			
<b>Pilot-in-command</b>							
Licence Type	Private Pilot Licence (PPL) (Aeroplane)		Gender	Male		Age	43
Licence Valid	Yes	Total Hours	86		Total Hours on Type	66.6	
Total Hours 30 Days	17		Total Flying on Type Past 90 Days	33.5			
<b>People On-board</b>	1 + 0	<b>Injuries</b>	0	<b>Fatalities</b>	0	<b>Other (on ground)</b>	0
<b>What Happened</b>							
<p>On Wednesday afternoon, 13 December 2023, a pilot on-board a Jabiru J430 aircraft with registration ZU-TSM took off on a private flight from Rhino Park Airfield in Bronkhorstspuit, Gauteng province, with the intention to land at the same airfield. The flight was conducted under 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 he took off from Runway (RWY) 09 and climbed to 6500 feet (ft) above mean sea level (AMSL). He felt a turbulence and decided to descend to circuit height whilst routing back to Rhino Park Airfield (Rhino Park Airfield is covered in asphalt and is unmanned). The pilot stated that he landed the aircraft on RWY 09 at a speed of 77 knots (kts); the aircraft floated for a moment and then touched down beyond the designated landing zone. He applied the brakes but was also concerned about the available braking distance, which was insufficient, as well as the likelihood of having overheated brakes. However, he maintained the brake pressure. During the braking sequence, the pilot lost directional control of the aircraft and it veered off to the right of RWY 09.</p> <p>The nose landing gear broke off when the aircraft departed the runway surface. It came to rest in a nose-down attitude on the right side of Runway 09.</p>							



**Figure 1:** The aerial view of Rhino Park Airfield and the final resting position of ZS-TSM.  
(Source: Google Earth)



**Figure 2:** The aircraft as it came to rest on the right side of Runway 09 near the threshold of RWY 27. The nose gear strut that broke off is in the foreground. (Source: Pilot)





### 4.3.11. LANDING

#### Normal Landing

1	Airspeed	65 KIAS
2	Wing Flaps	FULL DOWN ( below 70 KIAS)
3	Touchdown	MAIN WHEELS FIRST
4	Landing Roll	LOWER NOSE WHEEL GENTLY
5	Braking	MINIMUM REQUIRED

#### Findings

1. The pilot was initially issued a Private Pilot Licence (PPL) on 27 November 2023 with an expiry date of 30 November 2024. The pilot had flown a total of 66.6 hours on the aircraft type.
2. The pilot had a Class 2 aviation medical certificate that was issued on 23 August 2023 with an expiry date of 31 August 2025 with no medical restrictions. The pilot was properly licensed and medically fit to conduct the flight.
3. The last annual inspection on the aircraft was certified on 26 July 2023 at 60.1 total airframe hours. The aircraft was issued a Certificate of Release to Service (CRS) on 15 August 2023 with an expiry date of 10 August 2024 or at 160.1 airframe hours, whichever occurs first. The aircraft had accrued a further 11.6 hours since the last annual inspection.
4. The aircraft had a valid Authority to Fly (ATF) which was initially issued on 11 August 2022. The ATF was last renewed on 11 August 2023 with an expiry date of 10 August 2024. The aircraft's Certificate of Registration (C of R) was issued to the current owner on 29 June 2022.
5. The aircraft touched down at a speed of 77 kts and with the flaps set at 10°. According to the Jabiru Owner's Manual, the aircraft's landing speed is 65 kts with the wing flaps full down. The aircraft landed too deep and at a high speed on RWY 09 which left the aircraft with insufficient surface to safely stop and, thus, overshoot the runway. The aircraft came to a stop on the right side of RWY 09 near the threshold of RWY 27.

#### Probable Cause(s)

The aircraft landed deep and at a speed of 77 kts which was above the approved landing speed of 65 kts; this resulted in the aircraft overshooting the runway.

#### Contributing Factor(s)

- Landing above the recommended speed prescribed in the Jabiru Owner's Manual.
- Electing not to go-around.

#### Safety Action(s)

None.

<b>Safety Message</b>
<ul style="list-style-type: none"> <li>• Pilots should always conduct proper flight planning which must include the latest weather information.</li> <li>• Pilots are reminded that if the conditions for safe landing are no longer conducive, a go-around is an alternative to ensure a safe landing.</li> </ul>
<b>About this Report</b>
<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>
<b>Purpose</b>
<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>
<b>Disclaimer</b>
<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**