

**LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL**

|  |                   |  |                  |                                   |                      |  |        |    |
|--|-------------------|--|------------------|-----------------------------------|----------------------|--|--------|----|
| <b>Reference Number</b>  |                   | CA18/2/3/10445   |                  |                                   |                      |  |        |    |
| <b>Classification</b>  | Accident          | <b>Date</b>  | 23 April 2024    |                                   |                      | <b>Time</b>                                | 1015Z  |    |
| <b>Type of Operation</b>   | Private (Part 94) |  |                  |                                   |                      |  |        |    |
| <b>Location</b>  |                   |  |                  |                                   |                      |  |        |    |
| Place of Departure   |                   | Stellenbosch Airfield (FASB), Western Cape                           |                  | Place of Intended Landing         |                      | Stellenbosch Airfield (FASB), Western Cape |        |    |
| Place of Occurrence  |                   | During the landing roll on Runway 19 at Stellenbosch Airfield (FASB) |                  |                                   |                      |  |        |    |
| GPS Co-ordinates   |                   | Latitude   | 33° 58' 44.96" S | Longitude                         | 018° 49' 17.76" E    | Elevation                                  | 296 ft |    |
| <b>Aircraft Information</b>  |                   |  |                  |                                   |                      |  |        |    |
| Registration   |                   | ZU-IWA   |                  |                                   |                      |  |        |    |
| Make; Model; S/N   |                   | Van's Aircraft; RV14 (Serial Number: 140342)                         |                  |                                   |                      |  |        |    |
| Damage to Aircraft   |                   | Substantial  |                  |                                   | Total Aircraft Hours | 103  |        |    |
| <b>Pilot-in-command</b>  |                   |  |                  |                                   |                      |  |        |    |
| Licence Type   |                   | Private Pilot Licence (PPL)  |                  | Gender                            | Male                 |  | Age    | 76 |
| Licence Valid  |                   | Yes  | Total Hours      | 22 392.10                         |                      | Total Hours on Type                        | 43.10  |    |
| Total Hours 30 Days  |                   | 4.35   |                  | Total Flying on Type Past 90 Days |                      |  | 9.35   |    |
| <b>People On-board</b>   | 1+0               | <b>Injuries</b>  | 0                | <b>Fatalities</b>                 | 0                    | <b>Other (on the ground)</b>               |        | 0  |
| <b>What Happened</b>   |                   |  |                  |                                   |                      |  |        |    |
| <p>On 23 April 2024, a pilot on-board an RV14 tail dragger aircraft with registration ZU-IWA took off on a private flight from Stellenbosch Airfield in the Western Cape province. The pilot intended to conduct touch-and-go circuits in the 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>According to the pilot, he intended to perform a full stop landing on the third circuit after approximately 25 minutes of flight time. The aircraft was stable on approach for Runway 19 at 65 knots (kts), followed by an uneventful touchdown. During the landing roll whilst travelling at approximately 30 kts, he applied excessive brakes to reduce the speed in preparation to make a turn into an exit taxiway. The aircraft nosed over, and the propeller impacted the runway; it came to a stop in a tail-high attitude.</p> <p>The pilot was not injured during the accident sequence. The propeller, nose section and the left main wheel fairing were damaged.</p> <p>Fine weather conditions prevailed at the time of the flight.</p> |                   |  |                  |                                   |                      |  |        |    |

## Taildraggers

Braking Action of Taildraggers (Source: airliner.net)

*Taildragger landing techniques encourage operators to use three-point landing (if the tail wheel touches down before the others, it is even better). It is also encouraged that the use of immediate or excessive braking be avoided. Taildraggers are prone to flipping/nosing over during landing if brake or excessive braking is used in an attempt to reduce speed.*



**Figure 1:** The aircraft after the accident. (Source: Pilot)

## Findings

1. The pilot had a Private Pilot Licence (PPL) Airplane that was initially issued by the Regulator on 7 January 2014. The licence was renewed on 31 May 2023 with an expiry date of 31 May 2024. The pilot's Class 2 aviation medical certificate was valid; it was issued on 16 February 2024 with an expiry date of 31 January 2025. The aircraft type was endorsed on the pilot's licence with night and instrument ratings.

2. The pilot had a total of 22370 hours which he mostly acquired from airline transport operations. Upon retirement from the airline transport operation, the pilot converted his licence to PPL. His aircraft conversion on the aircraft type was conducted on 17 May 2023 at 2.3 hours. The pilot had acquired a total of 43.10 hours on the aircraft type.
3. The aircraft had an Authority to Fly (ATF) Certificate. The Certificate of Airworthiness (C of A) was issued on 19 December 2023 by the Regulator with an expiry of 22 January 2025. The Certificate of Registration (C of R) was issued to the current owner on 21 January 2022.
4. The aircraft's annual inspection was conducted and certified by an approved person (AP), after which the Certificate of Release to Service (CRS) was issued on 28 November 2023 at 84.1 airframe hours with an expiry date of 27 November 2024 or at 184.1 airframe hours, whichever comes first. The aircraft had 103 hours at the time of the flight, which meant that the aircraft accrued 18.9 hours after the last annual inspection.
5. The aircraft maintenance was conducted by an AP who had an AP Certificate that was issued by the Regulator on 21 August 2023 with an expiry date of 31 August 2025. The aircraft type was endorsed on the AMO's maintenance and operational specifications (Ops Specs) that was issued on 21 August 2023 with an expiry date of 31 August 2024. The aircraft was serviceable and there were no defects found or noted with any of the aircraft's systems in the logbooks.
6. The pilot applied excessive brakes during an attempt to reduce speed to turn from the runway and onto the taxiway.
7. The aircraft came to a stop in a tail-high attitude.
8. Good weather conditions prevailed at the time of the flight.

**Probable Cause(s)**

The pilot applied excessive brakes during the landing roll which caused the aircraft to nose over; it came to a stop in a tail-high attitude.

**Contributing Factor(s)**

None.

**Safety Action(s)**

None.

**Safety Message and/or Safety Recommendation/s**

None.

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| <p><b>About this Report</b></p> <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 desktop inquiries 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> |
| <p><b>Purpose</b></p> <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>   |
| <p><b>Disclaimer</b></p> <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**