

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10456						
Classification	Accident	Date	10 February 2024	Time	1025Z		
Type of Operation	Private (Part 94)						
Location							
Place of Departure	Morningstar Airfield, Western Cape Province	Place of Intended Landing	Klipfontein Airfield near Bonnievale, Western Cape Province				
Place of Occurrence	Private Airstrip near Bonnievale, Western Cape Province						
GPS Co-ordinates	Latitude	S34°03'43"S	Longitude	E20°09'51" E	Elevation	252 ft	
Aircraft Information							
Registration	ZU-FUR						
Make; Model; S/N	Paul Grobler; RV-7 (Serial Number: 73951)						
Damage to Aircraft	Substantial	Total Aircraft Hours	627.14				
Pilot-in-command							
Licence Type	Private Pilot Licence (PPL)	Gender	Male	Age	58		
Licence Valid	Yes	Total Flying Hours	759.29	Total Hours on Type	441.0		
Total Hours 30 Days	2.0		Total Flying on Type Past 90 Days	5.0			
People On-board	1+0	Injuries	0	Fatalities	0	Other (on the ground)	0
What Happened							
<p>On 10 February 2024, a pilot on-board a Vans RV-7 aircraft with registration ZU-FUR took off on a private flight from Morningstar Airfield in the Western Cape province to Klipfontein Airfield near Bonnievale in the same province when the accident occurred. 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 conducted a pre-flight inspection on the aircraft and no anomalies were found. The flight segment from Morningstar Airfield to Klipfontein Airfield was uneventful. Once at Klipfontein Airfield, the pilot assessed the weather conditions which favoured Runway 26. The approach was initiated at a speed of 75 knots (kts) (138 kilometres per hour) with the flaps selected to 40 degrees. According to the Pilot's Operating Handbook (POH), the approach speed of the aircraft ranges from 70 to 80 kts, and the recommended landing speed is 70 to 75 kts.</p> <p>The pilot reported that the aircraft touched down on the threshold of Runway 26. However, during the landing roll whilst the aircraft was approximately halfway (about 200 metres) down the dirt runway, he lost directional control and the aircraft ground looped to the left. The left-wing tip</p>							

impacted the ground before the aircraft came to a halt facing the direction from which it had approached. The aircraft was substantially damaged. The pilot vacated the aircraft unharmed.

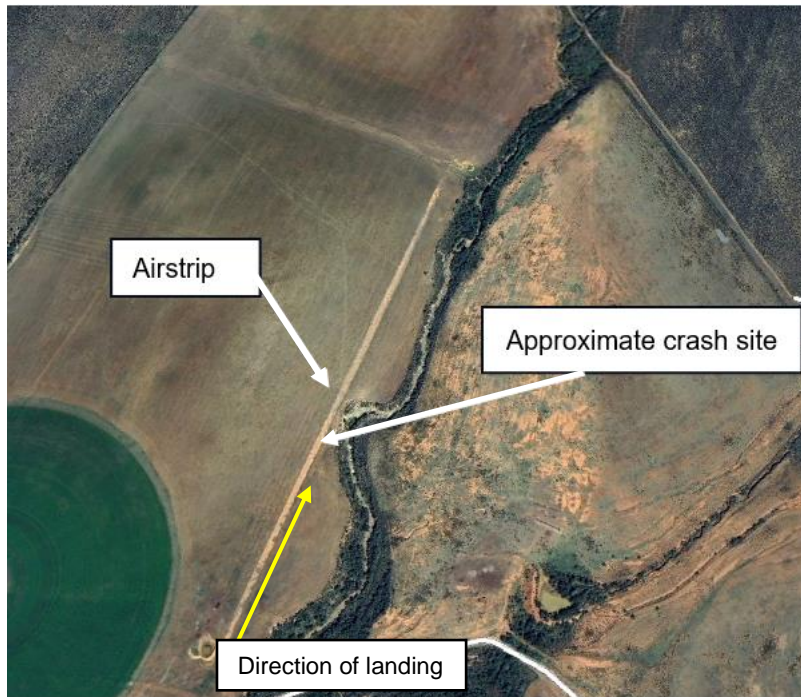


Figure 1: Aerial view of the airfield and the approximate area where the aircraft had stopped.
(Source: Google Earth)

Klipfontein Airfield comprises Runway 26/08, which is 400 metres long and 14 metres wide.

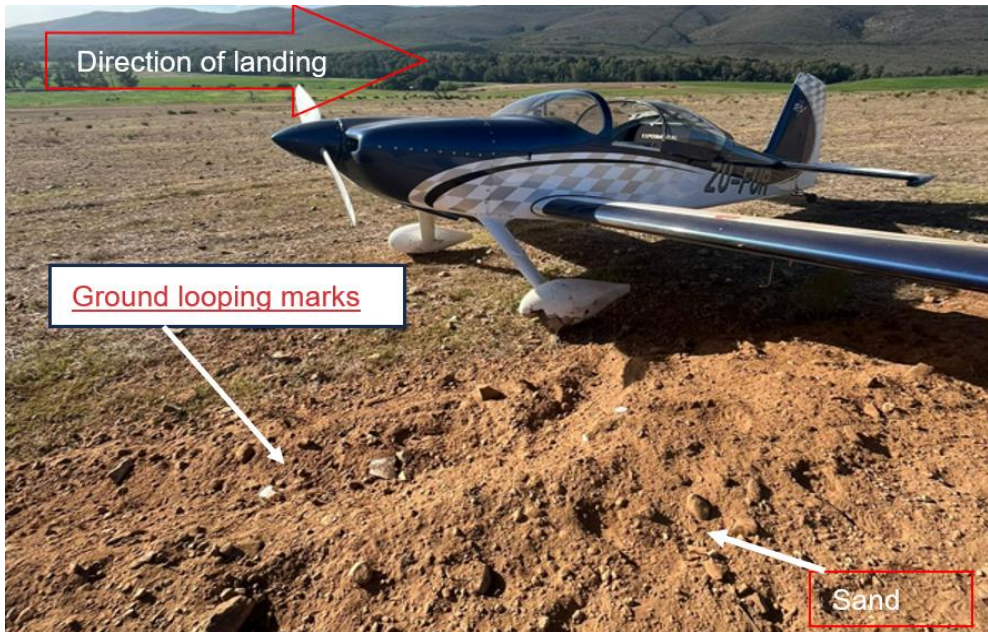


Figure 2: Ground loop marks on the dirt runway. (Source: Operator)



Figure 3: The damage sustained to the left wing (left picture). The damaged left main gear wheel fairing (right picture). (Source: Pilot)

The Vans RV-7 Pre-landing Checks (Source: Pilot's Operating Handbook [POH])

LANDING

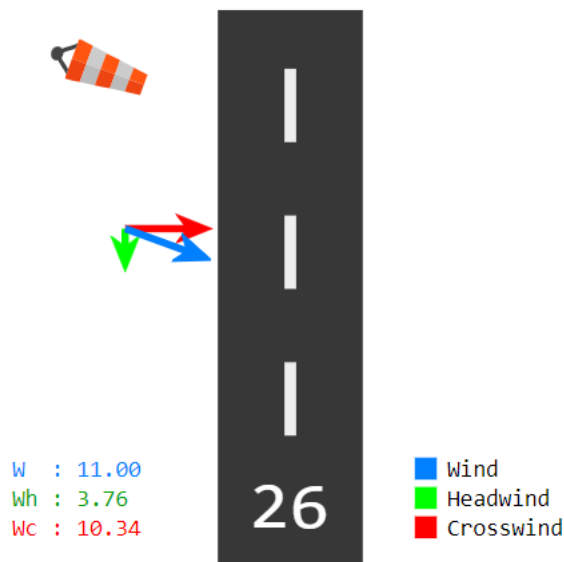
- a) Approach speed 70 - 80 kts
- b) Flaps 20 deg.
- c) Engine 1800 RPM
- d) 70 - 75 kts final
- e) 40 deg. flaps

AFTER LANDING

- a) Flaps – UP
- b) Fuel Boost Pump – OFF
- c) Landing Light – OFF
- d) Mixture – LEAN FOR TAXI
- e) Trim – NEUTRAL
- f) Throttle Friction Nut - Loose
- g) Transponder – STANDBY

The weather information in the table below was obtained from the pilot questionnaire.

Wind Direction	180°	Wind Speed	11kts	Visibility	9999m
Temperature	14°C	Cloud Cover	Nil	Cloud Base	Nil
Dew Point	11°	QNH	1015hPa		



- The weather report indicated a crosswind component of 11 kts during landing.
- The crosswind component which refers to the maximum crosswind velocity that an aircraft can effectively handle during take-off and landing is not specified in the Van’s RV-7 POH.

Findings

Pilot

1. The pilot was initially issued a Private Pilot Licence (PPL) on 28 October 2010. The licence was reissued on 1 November 2023 with an expiry date of 30 November 2025. The aircraft type was endorsed on the pilot’s licence. A Class 2 medical certificate was issued to the pilot on 9 November

2023 with an expiry date of 8 November 2024. The pilot had restrictions to wear suitable corrective lenses whilst conducting a flight.

Approved person

2. The approved person (AP) who certified the last annual inspection was appropriately certificated to conduct maintenance on the aircraft. The maintenance records indicated that the aircraft was maintained in accordance with (IAW) the regulations and approved procedures. Therefore, maintenance was not a factor to this accident.

Aircraft

3. The aircraft's Certificate of Registration (C of R) was issued to the current owner on 3 January 2020. The Authority to Fly (ATF) was initially issued on 6 December 2019. The latest ATF was reissued on 14 December 2023 with an expiry date of 31 December 2024.
4. The last annual inspection of the aircraft was certified on 13 November 2023 at 620.31 airframe hours. At the time of the accident, the aircraft had accrued a total of 627.14 airframe hours. The aircraft was flown a further 6.8 hours since the last annual inspection.
5. The aircraft was issued a Certificate of Release to Service (CRS) on 13 November 2023 at 620.31 airframe hours with an expiry date of 12 November 2024 or at 720.31 airframe hours, whichever occurs first. There were no defects recorded in the flight folio before the flight.
6. The aircraft was airworthy when it was dispatched for the flight.
7. It was determined that the weather conditions did not contribute to this accident.

Probable Cause

The pilot lost directional control of the aircraft during the landing roll which caused the aircraft to ground loop.

Contributing Factors

None.

Safety Action(s)

None.

Safety Message and Recommendation

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 desktop inquiries to bring awareness of potential safety issues to the industry in respect of this occurrence, as well as 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 apportion blame or liability.

Disclaimer

This report is produced without prejudice to the rights of the AIID, which are reserved.

This report is issued by:

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

Van's Aircraft RV-7

Pilot's Operating Handbook

ZU-FUR



WEIGHT AND BALANCE DATA

Make: Van's Aircraft Model: RV-7
Serial: 73951 Registration: ZU-FUR

LANDING

- a) Approach speed 70 - 80 kts
- b) Flaps 20 deg.
- c) Engine 1800 RPM
- d) 70 - 75 kts final
- e) 40 deg. flaps

AFTER LANDING

- a) Flaps – UP
- b) Fuel Boost Pump – OFF
- c) Landing Light – OFF
- d) Mixture – LEAN FOR TAXI
- e) Trim – NEUTRAL
- f) Throttle Friction Nut - Loose
- g) Transponder – STANDBY

ENGINE SHUTDOWN

- a) Flaps – DOWN
- b) Prop – FULL FORWARD
- c) Throttle – 1 000RPM
- d) CHT decidedly dropped
- e) All electrical switches – OFF
- f) iEFIS – Battery Power
- g) Avionics – OFF
- h) Magnetos – DEAD CUT CHECK
- i) Mixture – IDLE CUT-OFF
- j) Ait for shut down
- k) Master – OFF