

AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/9264	
Aircraft registration	ZS-MEA	Date of accident	30 Dec 2013		Time of accident	1630Z
Type of aircraft	Piper PA-28RT-201 (aeroplane)		Type of operation		Private	
Pilot-in-command licence type		Private Pilot	Age	50	Licence valid	Yes
Pilot-in-command flying experience		Total flying hours	104.6		Hours on type	56.6
Last point of departure		Zebula Lodge Aerodrome, Limpopo				
Next point of intended landing		Zebula Lodge Aerodrome, Limpopo				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)						
Runway 26, Zebula Lodge Aerodrome (GPS position: 24°45'24.69" South 027°58'06.05" East)						
Meteorological information		Surface wind: 270°5kt; Temperature: 20°C; Visibility: >10km				
Number of people on board	1 + 1	No. of people injured	0	No. of people killed	0	
Synopsis						
<p>The pilot, accompanied by a passenger, departed Zebula Lodge aerodrome on a local sightseeing flight of the area. They returned to the aerodrome approximately 40 minutes later. The pilot stated that he overflowed the aerodrome twice, following the unmanned aerodrome procedure whereby he inspected the runway to ensure it was safe to land. In particular, he checked that no wild animals were present; the aerodrome was unfenced and there was substantial wildlife on the property.</p> <p>The wind was blowing from the west and the pilot therefore landed on runway 26. During the landing roll, a kudu attempted to cross the runway and was struck by the right wing of the aircraft. The animal was killed on impact and the wing sustained structural damage.</p> <p>Nobody on board the aircraft was injured.</p>						
Probable cause						
The aircraft collided with a kudu that attempted to cross the runway during the landing roll.						
ASP Date				Release Date		

AIRCRAFT ACCIDENT REPORT

Name of Owner : P.R. Rudman
Name of Operator : Private
Manufacturer : Piper Aircraft Corporation
Model : PA-28RT-201
Nationality : South African
Registration Marks : ZS-MEA
Place : Zebula Lodge
Date : 30 December 2013
Time : 1630Z

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 of the Investigation

In terms of Regulation 12.03.1 of the Civil Aviation Regulations (1997), 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 establish legal liability.

Disclaimer

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1. FACTUAL INFORMATION

1.1 History of flight

1.1.1 The pilot, accompanied by a passenger, took off from Zebula Lodge aerodrome on a local sightseeing flight of the area. They returned to the aerodrome approximately 40 minutes later. The pilot stated that he overflew the aerodrome twice, following the unmanned aerodrome procedure whereby he inspected the runway to ensure it was safe to land. In particular, he checked that no wild animals were present; the aerodrome was unfenced and there was substantial wildlife roaming the property.

1.1.2 The prevailing wind was blowing from the west and the pilot therefore landed on

runway 26. During the landing roll, a kudu tried to cross the runway and was struck by the right wing of the aircraft. The animal was killed on impact and the wing sustained structural damage. Nobody on board the aircraft was injured.

1.1.3 The accident occurred during daylight conditions at the co-ordinates 24°45'24.69" South 027°58'06.05" East at 4 220ft above mean sea level (AMSL).

1.2 Injuries to persons

Injuries	Pilot	Crew	Pass.	Other
Fatal	-	-	-	-
Serious	-	-	-	-
Minor	-	-	-	-
None	1	-	1	-

1.3 Damage to aircraft

1.3.1 The leading edge of the right wing was damaged.



Figure 1: The damage to the right wing of ZS-MEA after impact.

1.4 Other damage

1.4.1 The kudu was killed on impact with the aircraft.

1.5 Personnel information

Nationality	South African	Gender	Male	Age	50
Licence number	0272294109	Licence type	Private pilot		
Licence valid	Yes	Type endorsed	Yes		
Ratings	Night Rating				
Medical expiry date	31 March 2014				
Restrictions	Must wear corrective lenses and carry spare set				
Previous accidents	None				

Flying experience

Total hours	104.6
Total past 90 days	5.8
Total on type past 90 days	5.8
Total on type	56.6

1.6 Aircraft Information

Airframe

Type	Piper PA-28RT-201	
Serial number	28R-7703234	
Manufacturer	Piper Aircraft Corporation	
Year of manufacture	1977	
Total airframe hours (at time of accident)	3 753.4	
Last MPI (hours & date)	3 734.4	1 August 2013
Hours since last MPI	9.0	
C of A (issue date)	12 July 1989	
C of A (issue expiry date)	11 July 2014	
C of R (issue date) (present owner)	25 May 2012	
Operating categories	Part 91	

Engine

Type	Continental TSIO-360-F
Serial number	305229
Hours since new	3 753.4
Hours since overhaul	864.6

Propeller

Type	Hartzell BHC-C2YF-1BF
Serial number	AM1552E
Hours since new	3 753.4
Hours since overhaul	46.1

1.7 Meteorological information

1.7.1 The weather at the time and date of the incident was obtained from the pilot's questionnaire.

Wind direction	270°	Wind speed	5kt	Visibility	>10km
Temperature	20°C	Cloud cover	Nil	Cloud base	Nil
Dew point	Unknown				

1.8 Aids to navigation

1.8.1 The aircraft was equipped with standard navigational equipment as per the minimum equipment list approved by the regulator. No defects to this equipment were recorded prior to or during the flight.

1.9 Communication

1.9.1 The aircraft was equipped with standard communication equipment as per the minimum equipment list approved by the regulator. No defects to this equipment were recorded prior to or during the flight.

1.9.2 Zebula Lodge being an unlicensed aerodrome, the pilot broadcast his intentions on the VHF frequency 124.8 MHz.

1.10 Aerodrome information

Aerodrome location	Zebula aerodrome	
Aerodrome co-ordinates	24°45'24.69" South 027°58'06.05" East	
Aerodrome elevation	4 220ft	
Runway designations	08/26	
Runway dimensions	13m x 1 300m	
Runway used	26	
Runway surface	Asphalt	
Approach facilities	None	
Aerodrome status	Unlicensed	

1.11 Flight recorders

1.11.1 The aircraft was not equipped with a flight data recorder or cockpit voice recorder. Neither was required by the regulations to be fitted to this type of aircraft.

1.12 Wreckage and impact information

1.12.1 During the landing roll, a kudu attempted to cross the runway and was struck by the right wing of the aircraft.

1.13 Medical and pathological information

1.13.1 Not applicable.

1.14 Fire

1.14.1 There was no pre- or post-impact fire.

1.15 Survival aspects

1.15.1 The accident was considered to be survivable due to the low kinetic forces associated with the impact sequence. Both occupants were wearing the aircraft-equipped safety harness at the time.

1.16 Tests and research

1.16.1 None considered necessary.

1.17 Organisational and management information

1.17.1 This was a private flight.

1.17.2 The last mandatory periodic inspection prior to the accident flight was certified on 1 August 2013 at 3 734.4 airframe hours by an approved aircraft maintenance organisation (AMO) that was in possession of a valid AMO approval certificate.

1.18 Additional information

1.18.1 None.

1.19 Useful or effective investigation techniques

1.19.1 No new methods were applied.

2. ANALYSIS

2.1 Man (Pilot)

2.1.1 The pilot was familiar with the aerodrome and flew twice over the runway to inspect it to ensure that it was clear of any animals before he proceeded with the approach. During the landing roll on runway 26, a kudu tried to cross the runway and was struck by the right wing of the aircraft. The animal perished on impact. The pilot was unable to take avoidance action as this would probably have meant veering off the runway.

2.2 Machine (Aircraft)

2.2.1 The aircraft was serviceable for the flight.

2.3. Aerodrome

2.3.1 Zebula Lodge is an unlicensed aerodrome. A substantial number of wild animals roam the property and can walk across the runway at any time as the aerodrome is unfenced. Carrying out a visual inspection of the runway surface from the air does not mean there will be no animals on the runway by the time the aircraft touches down.

3. CONCLUSION

3.1 Findings

3.1.1 The pilot was the holder of a valid private pilot's licence and had the aircraft type endorsed on his licence.

3.1.2 The aircraft was in possession of a valid Certificate of Airworthiness and was recorded as being serviceable at the time of the flight.

3.1.3 The pilot flew twice over the aerodrome to inspect the runway for any possible animals before he commenced with his approach and subsequent landing.

3.1.4 The aircraft collided with a kudu during the landing roll on runway 26.

3.1.5 Zebula Lodge was an unlicensed aerodrome.

3.2 Probable cause

3.2.1 The aircraft collided with a kudu that attempted to cross the runway during the landing roll.

3.3 Contributory factor

3.3.1 The aerodrome was unfenced and substantial numbers of wild animals roamed the property.

4. SAFETY RECOMMENDATIONS

4.1 It is recommended that the Air Safety Infrastructure Division draft an official letter to the land owner requesting that fencing off the aerodrome area be considered in the interest of aviation safety.

5. APPENDICES

5.1 None.