



AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

					Reference:	CA18/2/3/8611	
Aircraft Registration	ZU-EHY	Date of Accident	07 February 2009		Time of Accident	0850Z	
Type of Aircraft	Cheetah Sport	NTCA Aeroplane	Type of Operation	Private			
Pilot-in-command Licence Type	Private Pilot		Age	51	Licence Valid	Yes	
Pilot-in-command Flying Experience	Total Flying Hours		1057.4		Hours on Type	57.2	
Last point of departure	Cirrus Private Aerodrome near Vereeniging, Gauteng.						
Next point of intended landing	Kololo Lodge 2 Private Aerodrome, Waterberg area near Vaalwater, Limpopo.						
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)							
On grass runway at Kololo Lodge 2, Waterberg area near Vaalwater, Limpopo Province.							
Meteorological Information	Surface Wind: Easterly/Light ; Temperature 26°C; Visibility: CAVOK						
Number of people on board	1 + 1	No. of people injured	0	No. of people killed	0		
Synopsis							
<p>The pilot was accompanied by a passenger on a private flight from Cirrus private aerodrome near Vereeniging to Kololo Lodge 2 near Vaalwater. Upon arrival at Kololo Lodge 2 after an uneventful flight, the pilot selected 10° of flaps for landing onto Runway 03 at an indicated airspeed of approximately 50mph. This runway has a down slope and during landing, the aircraft bounced twice causing the nose landing gear wheel to separate from the aircraft and the aircraft then nosed over. The pilot made an error of judgement during the landing on the down slope of the runway and allowed the aircraft to land on the nose landing gear first.</p> <p>The pilot and passenger sustained no injuries. The aircraft sustained damage to the nose wheel, right hand wing struts, cockpit and propeller blades.</p>							
Probable Cause							
<p>The pilot made an error of judgement during the landing on the down slope of the runway. He allowed the aircraft to land on the nose landing gear first, and after the aircraft bounced twice the nose landing gear collapsed.</p>							
IARC Date			Release Date				

AIRCRAFT ACCIDENT REPORT

Name of Owner/Operator : Waterston K.A.
Manufacturer : Rainbow Aircraft (Pty) Ltd.
Model : Cheetah
Nationality : South African
Registration Marks : ZU-EHY
Place : Kololo Lodge Aerodrome
Date : 07 February 2009
Time : 0850Z

All times given in this report is 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:

This report is given without prejudice to the rights of the CAA, which are reserved.

1. FACTUAL INFORMATION

1.1 History of Flight

- 1.1.1 The pilot stated that on 07 February 2009 at approximately 0655Z, he was accompanied by a passenger on a VFR private flight from Cirrus private aerodrome near Vereeniging to Kololo Lodge 2 aerodrome near Vaalwater.
- 1.1.2 Upon arrival at Kololo Lodge 2 aerodrome after an uneventful flight of approximately 1 hour and 55 minutes, the pilot selected 10° of flaps for landing onto Runway 03 at an Indicated Air Speed (IAS) of approximately 50mph.
- 1.1.3 However, upon landing on Runway 03 which has a down slope, the aircraft bounced twice. During the second bounce, the pilot allowed the aircraft to land on the nose landing gear first, causing the nose landing gear to separate and the aircraft subsequently nosed over.

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 aircraft sustained damage to the nose gear, right-hand wing struts, cockpit area and propeller blades during the impact sequence.



PHOTO 1: SHOWING AFTER THE AIRCRAFT WAS POSITIONED BACK ONTO ITS WHEELS.

1.4 Other Damage

1.4.1 No other damage was sustained to property on the ground during the accident.

1.5 Personnel Information

Nationality	South African	Gender	Male	Age	51
Licence valid	Yes	Type Endorsed	Yes		
Ratings	None				
Medical Expiry Date	31 March 2009				
Restrictions	None				
Previous Accidents	None				

Flying Experience :

Total Hours	1057.4
Total Past 90 Days	9.9
Total on Type Past 90 Days	9.9
Total on Type	57.2

1.6 Aircraft Information

Airframe:

Type	Cheetah	
Serial Number	CH 067	
Manufacturer	Rainbow Aircraft (Pty) Ltd.	
Year of Manufacture	2006	
Aircraft Status	NTCA	
Total Airframe Hours (At time of Accident)	587.3	
Last Annual Inspection (Hours & Date)	556.8	18 December 2008
Hours since Last Annual Inspection	30.5	
Authority to Fly (Issue Date)	12 December 2008	
Authority to Fly (Expiry Date)	06 December 2009	
C of R (Issue Date) (Present owner)	10 April 2008	
Operating Categories	Standard	

Engine:

Type	Rotax 912 S
Serial Number	5646243
Hours since New	587.3
Hours since Overhaul	Not yet reached

Propeller:

Type	P-Prop Wooden 2 Blades
Serial Number	N2569 FEC 2G4
Hours since New	587.3
Hours since Overhaul	Not yet reached

The Cheetah is a production-built NTCA aeroplane. The maximum certificated mass of the aircraft is 560kg. The aircraft is controllable and manoeuvrable on all three axis.

1.6.1 The aircraft was maintained by an Approved Person, (AP No.935) prior to the accident.

1.7 Meteorological Information

1.7.1 Weather information obtained from the pilot's questionnaire is as follows:

Wind direction	Easterly	Wind speed	2kt	Visibility	>10 Km
Temperature	26°C	Cloud cover	3/8	Cloud base	7000ft
Dew point	Unknown				

1.8 Aids to Navigation

1.8.1 The aircraft was equipped with the standard navigation equipment for the type aircraft.

1.9 Communications

1.9.1 The communication equipment that was installed in the aircraft was found to be in accordance with the approved equipment list. There were no defects reported with the communication equipment prior to the accident.

1.10 Aerodrome Information

1.10.1 The following aerodrome information below was extracted from the pilot's questionnaire:

Aerodrome Location	Kololo Lodge 2 Aerodrome	
Aerodrome Co-ordinates	Unknown	
Aerodrome Elevation	4500ft	
Runway Designations	03 / 21	
Runway Dimensions	1200 metres	
Runway Used	03	
Runway type	Unregistered/ unmanned	
Runway Surface	Grass	
Approach Facilities	None	

1.11 Flight Recorders

1.11.1 The aircraft was not fitted with a Cockpit Voice Recorder (CVR) or a Flight Data Recorder (FDR) and neither was required by regulations to be fitted to this type of aircraft.

1.12 Wreckage and Impact Information

1.12.1 Upon landing on the grass Runway 03 with a down slope, the aircraft bounced twice. The nose wheel broke off after the second bounce and the aircraft nosed over.



PHOTO 2: SHOWS AIRCRAFT POSITIONED BACK ONTO ITS MAIN WHEELS, PROPELLER BLADES BENT, RIGHT WING STRUT BENT & NOSE WHEEL DAMAGED.

1.13 Medical and Pathological Information

1.13.1 The pilot was in possession of a valid medical certificate at the time of the accident.

1.14 Fire

1.14.1 There was no evidence of a pre- or post-impact fire.

1.15 Survival Aspects

1.15.1 The accident was survivable, as the pilot and passenger were properly restrained and virtually no damage sustained to the cockpit area due to the low impact forces involved.

1.16 Tests and Research

1.16.1 None.

1.17 Organisational and Management Information

1.17.1 The aircraft was classified as a privately owned aircraft.

1.18 Additional Information

1.18.1 None.

1.19 Useful or Effective Investigation Techniques

1.19.1 None.

2. ANALYSIS

- 2.1 The aircraft was serviceable prior to the accident and no record of any malfunction or defect was recorded that could have contributed to the cause of the accident.
- 2.2 The last Annual Inspection was certified by an Approved Person (AP) on 18 December 2008 at 556.8 airframe hours. The aircraft had flown a further 30.5 hours since the last MPI was certified.
- 2.3 The pilot was correctly licensed and rated on the aircraft type.
- 2.4 The accident occurred in daylight conditions. The weather conditions were fine and did not contribute to the cause of the accident.
- 2.5 The pilot made an error of judgement during landing on the down slope of the runway by allowing the aircraft to land first on the nose landing gear. The aircraft then bounced twice during landing, resulting in the separation of the nose wheel and the aircraft then nosed over.

3. CONCLUSION

3.1 Findings

- 3.1.1 The pilot was the holder of a valid private pilot's licence with the aircraft type endorsed on his licence.
- 3.1.2 The pilot was the holder of a valid aviation medical certificate.
- 3.1.3 The aircraft was maintained by an Approved Person (AP) who is registered with the Aero Club of South Africa (MISASA). No reported defects were recorded to indicate that the aircraft was not airworthy at the time of the accident.
- 3.1.4 The accident occurred in daylight conditions.
- 3.1.5 Weather conditions were reported to be fine at the time and had no bearing on the cause of the accident.
- 3.1.6 This was a private flight.

3.2 Probable Cause/s

- 3 The pilot made an error of judgement during landing on the down slope of the runway by allowing the aircraft to land first on the nose landing gear. The aircraft then bounced twice during landing, resulting in the separation of the nose wheel and the aircraft then nosed over.

4. SAFETY RECOMMENDATIONS

4.1 None

5. APPENDICES

5.1 None.

-END-

Report reviewed and amended by the Advisory Safety Panel
26 May 2009