



AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference: CA18/2/3/9017	
Aircraft Registration	ZU-DBD	Date of Accident	25 February 2012		Time of Accident 0500Z
Type of Aircraft	Raptor 582		Type of Operation		Training
Pilot-in-command Licence Type		PPL	Age	59	Licence Valid Yes
Pilot-in-command Flying Experience		Total Flying Hours	650		Hours on Type 190.6
Last point of departure		South Africa, Panorama Aerodrome, Gauteng Province (not coded)			
Next point of intended landing		South Africa, Panorama Aerodrome, Gauteng Province (not coded)			
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)					
Approximately 50m to the right of Runway 30 at Panorama					
Meteorological Information		CAVOK, 8 knots, North easterly wind			
Number of people on board	1+1	No. of people injured	2	No. of people killed	0
Synopsis		<p>On 25 February 2012 at 0500Z, a pilot and a student pilot were busy with a training flight. During the take-off on Runway 30 at Panorama airfield, the student pulled back and to the left on the control bar. This led to an immediate right hand descending turn. The aircraft veered off the runway to the right and the nose wheel made contact with the runway. The aircraft cart-wheeled and came to rest on the side of the runway.</p> <p>The aircraft sustained substantial damage to the undercarriage, propeller, pylon and wing.</p> <p>The pilot sustained a broken arm. The student did not sustain any injuries but did complain of back pains.</p>			
Probable Cause					
Loss of directional control					
Contributory factor: Lack of experience Error in judgement with regard to first phase of flight.					
IARC Date				Release Date	

AIRCRAFT ACCIDENT REPORT

Name of Owner/Operator : Mr ME Gregson / Johannesburg Flying Academy
Manufacturer : Aviate Products CC
Model : Raptor
Nationality : South African
Registration Marks : ZU-DBD
Place : Panorama, Gauteng Province
Date : 25 February 2012
Time : 0500Z

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:

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 On 25 February 2013 at approximately 0500Z a pilot and student were involved in a training flight.
- 1.1.2 They started a normal take-off on Runway 30 directly into wind.
- 1.1.3 As the aircraft rotated and took-off the student pulled the bar back and to the side causing the aircraft to go into an immediate right-hand descending turn.
- 1.1.4 The instructor was unable to correct despite attempting to do so.
- 1.1.5 The aircraft impacted the ground and cartwheeled.

1.2 Injuries to Persons

- 1.2.1 The pilot sustained a broken arm.
- 1.2.2 The student did not sustain any injuries but complained of back pains.

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

1.3 Damage to Aircraft

1.3.1 The aircraft sustained substantial damage.

1.3.2 The nose gear was ripped off; the propeller and pylon sheered and the wing bent.

1.4 Other Damage

1.4.1 There was no other damage caused.

1.5 Personnel Information

1.5.1 Pilot information

Nationality	British	Gender	Male	Age	59
Licence Number	0270234495	Licence Type	Microlight PPL		
Licence valid	Yes	Type Endorsed	Yes		
Ratings	Instructor & Night ratings				
Medical Expiry Date	30 November 2012				
Restrictions	Corrective lenses				
Previous Accidents	No				

Flying Experience:

Total Hours	650
Total Past 90 Days	32.6
Total on Type Past 90 Days	25.8
Total on Type	190.6

1.5.2 Student information

1.5.2.1 The student pilot was not in possession of Student license at the time of the accident as he was busy with his ab-initio training.

1.5.2.2 He had a total of 9.6 hours at the time of the accident.

1.6 Aircraft Information

Airframe:

Type	Raptor	
Serial Number	AR130351	
Manufacturer	Aviate Products CC	
Date of Manufacture	2003	
Total Airframe Hours (At time of Accident)	524.53 hours	
Last Annual (Date & Hours)	27 November 2011	483.55
Hours since Last Annual	40.98	
Authority to Fly (Issue Date)	30 August 2011	
Authority to Fly (Expiry Date)	6 August 2012	
C of R (Issue Date) (Present owner)	30 August 2011	
Maximum Certified Mass	450kg	
Operating Categories	Training (Part 141)	

Engine :

Type	Rotax 582
Serial Number	5590351
Hours since New	146.50
Hours since Overhaul	40.45

Propeller :

Type	P-Prop
Serial Number	N2248
Hours since New	364
Hours since Overhaul	N/A

1.7 Meteorological Information

1.7.1 Information obtained from the pilot's questionnaire

Wind direction	300°	Wind speed	8 kts	Visibility	Good
Temperature	12°C	Cloud cover	3/8 to 4/8	Cloud base	3000ft
Dew point	N/A				

1.8 Aids to Navigation

- 1.8.1 The aircraft was equipped with standard navigational equipment as approved by the Regulator.

1.9 Communications.

- 1.9.1 The aircraft was equipped with standard communication equipment as approved by the Regulator.

1.10 Aerodrome Information

Aerodrome Location	Panorama Aerodrome	
Aerodrome Co-ordinates	S26 19 40.00	E028 04 00.00
Aerodrome Elevation	5050ft	
Runway Designations	12	30
Runway Dimensions	600m	15m
Runway Used	30	
Runway Surface	Grass	

1.11 Flight Recorders

1.11.1 The aircraft was not equipped with a Flight Data Recorder (FDR) or a Cockpit Voice Recorder (CVR) nor was either required by the regulations.

1.12 Wreckage and Impact Information



Fig 1



Fig 2



Fig 3

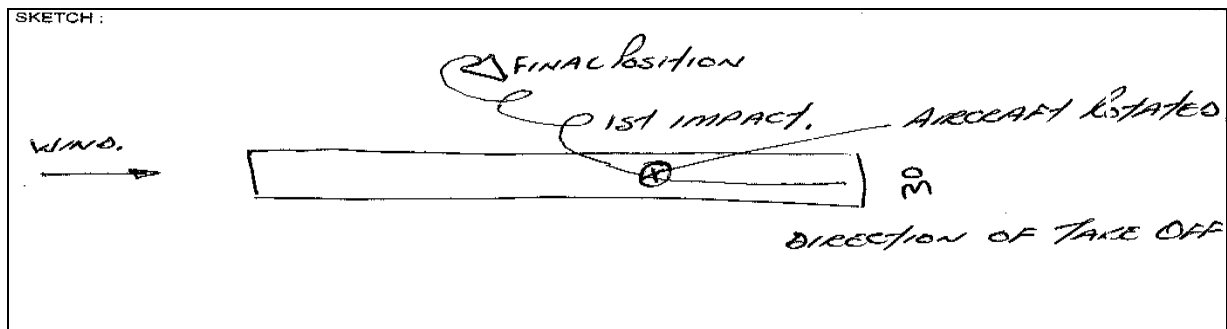


Fig 4: Sketch by the Pilot

1.13 Medical and Pathological Information

1.13.1 None.

1.14 Fire

1.14.1 There was no evidence of fire in flight or after the impact.

1.15 Survival Aspects (Search rescue if applicable)

1.15.1 The accident was considered survivable due to the fact that the aircraft was in the first phase of flight.

1.15.2 The pilot and student were properly restrained by the aircraft safety harnesses fitted to the aircraft.

1.16 Tests and Research

1.16.1 None considered necessary

1.17 Organizational and Management Information

1.17.1 Aircraft was maintained by an Approved Person.

1.17.2 The aircraft was approved to be utilised by a SACAA approved ATO.

1.17.3 The ATO was in possession of a valid ATO certificate.

1.18 Additional Information

1.18.1 The student was close to solo and was taking-off consistently unassisted.

1.18.2 Duration of flight was 0.1 hours.

1.18.3 Weight calculations (information obtained from the pilot's questionnaire)

Empty weight	194 kg
Fuel onboard (45lt)	32 kg
Pilot	58 kg
Passenger	125 kg
Baggage	5 kg
Max pay load	220 kg
Max all up weight (actual)	414 kg
Max all up weight (as per manual)	450 kg

1.18.3 The aircraft was removed from Runway 30 and recovered to the hangar.

1.19 Useful or Effective Investigation Techniques

1.19.1 None considered necessary for this investigation.

2. ANALYSIS

2.1 On 25 February 2012 at approximately 0500Z, a pilot and student were involved in a training flight. They started a normal take-off on Runway 30 directly into wind.

2.2 As the aircraft rotated and took-off the student pulled the bar back and to the side causing the aircraft to go into an immediate right-hand descending turn. The instructor was unable to correct despite attempting to do so.

2.3 The aircraft impacted the ground and cartwheeled.

2.4 The aircraft was removed from Runway 30 and recovered to the hangar.

3. CONCLUSION

3.1 Findings

3.1.1 The aircraft was certified and maintained in accordance with existing regulations and approved procedures.

3.1.2 The aircraft had a valid Authority to Fly and had been maintained in compliance with the regulations.

3.1.3 The maintenance records indicated that the aircraft was equipped and maintained in accordance with existing regulations and approved procedures.

3.1.3 The aircraft was airworthy when dispatched for the flight.

3.1.4 The mass and the centre of gravity of the aircraft were within the prescribed limits.

3.1.5 There was no evidence of any defect or malfunction in the aircraft that could have contributed to the accident.

3.1.6 The student's actions indicated that his knowledge of the aircraft systems was inadequate.

3.1.7 There was insufficient height available to affect a recovery.

3.2 Probable Cause/s

3.2.1 Loss of directional control.

3.3 Contributory factors

3.3.1 Lack of training and experience.

3.3.2 Error in judgement with regard to first phase of flight.

4. SAFETY RECOMMENDATIONS

4.1 None.

5. APPENDICES

5.1 None.

Compiled by: Natasha Apollis

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For: Director of Civil Aviation

Date:

Investigator-in-charge: Prince Mereotlhe

Date:

Co-Investigator: N/A

Date: