

AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/8919	
Aircraft Registration	ZS-CVA	Date of Accident	06 April 2011		Time of Accident	10:15Z
Type of Aircraft	Cessna 206 Stationair		Type of Operation	Skydive		
Pilot-in-command Licence Type	Commercial Pilot		Age	32	Licence Valid	YES
Pilot-in-command Flying Experience	Total Flying Hours		454		Hours on Type	110
Last point of departure	FADX: Delta 200, Western Cape Province					
Next point of intended landing	FADX: Delta 200, Western Cape Province					
Location of the incident site with reference to easily defined geographical points (GPS readings if possible)						
FL110 above Delta 200 (FADX) in the Western Cape Province						
Meteorological Information	Wind direction: 180°, Wind speed:10 knots, visibili ty: CAVOK					
Number of people on board	1+6 (At takeoff)	No. of people injured	1	No. of people killed	0	
Synopsis	<p>On 6 April 2011, the pilot accompanied by six parachutists departed on a skydive flight from Delta 200 (FADX) runway 20 in the Western Cape.</p> <p>The aircraft climbed to FL090 where four parachutists exited the aircraft uneventfully. The aircraft then continued its climb to FL110 so the remaining two parachutists could also perform their jumps.</p> <p>On the fifth parachutist's attempt to exit the aircraft, his reserve parachute deployed prematurely. The pilot heard a loud bang followed by a sudden shaking of the airframe. The pilot then noticed that the parachutist had exited the aircraft and that the right horizontal stabilizer and elevator were substantially damaged. The last parachutist decided to remain in the aircraft.</p> <p>The pilot declared an emergency with Cape Town International Airport (FACT). During the landing the aircraft bounced and the propeller made contact with the runway surface.</p> <p>The parachutist that impacted the horizontal stabilizer, landed safely but sustained minor back and spinal injuries.</p>					
Probable Cause						
<p>The parachutist impacted the aircraft</p> <p>Contributory factor The parachutist's reserve parachute deployed prematurely</p>						
IARC Date				Release Date		
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AIRCRAFT ACCIDENT REPORT

Name of Owner/Operator : So So Investment
Manufacturer : Cessna Aircraft Company
Model : U206G
Nationality : South African
Registration Marks : ZS-CVA
Place : Cape Town (FACT) Western Cape Province
Date : 06 April 2011
Time : 10:15Z

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 produced without prejudice to the rights of the CAA, which are reserved.

1. FACTUAL INFORMATION

1.1 History of Flight

- 1.1.1 On 6 April 2011, the pilot accompanied by six parachutists departed on a skydive flight from Delta 200 (FADX) runway 20 in the Western Cape.
- 1.1.2 The aircraft climbed to FL090 where after four of the six parachutists exited the aircraft. The aircraft then continued its climb to FL110 for the remaining two parachutists to perform their jumps.
- 1.1.3 The fifth parachutist's reserve parachute deployed and resulted in the parachutist's early departure from the aircraft. The pilot looked back and noticed that the parachutist was no longer in the aircraft and the aircraft's right horizontal stabilizer and elevator were severely damaged. The last parachutist decided to remain in the aircraft.
- 1.1.4 The pilot stated that because the left elevator was stuck, he declared an emergency with FACT. During the emergency landing the aircraft bounced and the propeller made contact with the runway surface. The propeller and nose wheel were damaged.

1.2 Injuries to Persons

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

1.2.1 The pilot and the parachutist that remained in the aircraft, including the four parachutists that exited the aircraft at FL090 were not injured.

1.2.2 The fifth parachutist that exited the aircraft sustained minor back and spinal injuries

1.3 Damage to Aircraft

1.3.1 The damage the aircraft sustained to the elevator and horizontal stabilizer whilst in flight was due to the parachutist. During the landing, the nose wheel and propeller were also damaged.

1.4 Other Damage

1.4.1 There were no other damages.

1.5 Personnel Information

1.5.1 Pilot in command

Nationality	South African	Gender	Male	Age	32
Licence Number	0272205337	Licence Type	Commercial Pilot		
Licence valid	Yes	Type Endorsed	Yes		
Ratings	Night Rating, Instrument Rating				
Medical Expiry Date	30 September 2011				
Restrictions	Nil				
Previous Accidents	No				

Flying Experience:

Total Hours	454
Total Past 90 Days	140
Total on Type Past 90 Days	110
Total on Type	110

1.5.2 Skydiver

Nationality	South African	Gender	Male	Age	Unknown
Licence Number	C1693	PASA Membership number	2414		
Licence valid	Yes	Type Endorsed	Yes		
Ratings	Jump master rating Issued 8 August 2005 Professional Exhibition Rating Issued 12 October 2006				
Previous Accidents	No				

- 1.5.3 The skydiver was sent several emails but failed to make his information available. PASA was contacted directly for his information.

1.6 Aircraft Information

Airframe:

Type	Cessna U206G	
Serial Number	U206-03696	
Manufacturer	Cessna Aircraft Company	
Date of Manufacture	1995	
Total Airframe Hours (At time of Accident)	9487.8	
Last MPI (Date & Hours)	14 December 2011	
Hours since Last MPI	66.8	
C of A (Issue Date)	21 July 2011	
C of R (Issue Date) (Present owner)	17 February 2011	
Operating Categories	Skydiving	

Engine:

Type	Continental 10-550 N56B
Serial Number	1002190
Hours since New	266.8
Hours since Overhaul	TBO not yet reached

Propeller:

Type	Hartzell PHC-J3YF
Serial Number	FP7476B
Hours since New	266.8
Hours since Overhaul	TBO not yet reached

1.7 Meteorological Information

Wind direction	180	Wind speed	10kts	Visibility	CAVOK
Temperature	Unknown	Cloud cover	Unknown	Cloud base	Unknown
Dew point	Unknown				

1.8 Aids to Navigation

- 1.8.1 The aircraft was equipped with standard navigational equipment certified for this type of aircraft and there was no recorded failure prior to the flight or during flight.

1.9 Communications.

- 1.9.1 The aircraft was equipped with standard communication systems and none was reported unserviceable prior to or during the accident.

1.10 Aerodrome Information

1.10.1 The accident occurred outside the boundaries of an aerodrome.

1.11 Flight Recorders

1.11.1 The aircraft was not fitted with a Flight Data Recorder (FDR) or a Cockpit Voice Recorder (CVR), nor was it required by regulation.

1.12 Wreckage and Impact Information



Figure 1: Shows the right hand vertical stabiliser severely damaged.



Figure 2: Side view of damaged elevator

1.12.1 During the emergency landing, the aircraft bounced and landed on the nose landing gear causing damage to the nose gear and propeller.



Figure 3: Damaged nose gear and propeller



Figure 4: Side view of damaged propeller

1.13 Medical and Pathological Information

- 1.13.1 The pilot and the parachutist that remained in the aircraft, including the four parachutists that exited the aircraft at FL090 were not injured.
- 1.13.2 Due to the reserve chute deploying prematurely the parachutist that exited the aircraft prematurely sustained minor back and spinal injuries.
- 1.13.3 The medical report of the parachutist that was injured during the jump was not available at the time this report was compiled.

1.14 Fire

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

1.15 Survival Aspects

- 1.15.1 The accident was considered survivable because there was no damage to the cabin area. The pilot was able to use power adjustments to control rate of descent and return to FACT to land. The pilot was properly restrained with the safety harnesses fitted to the aircraft.

1.16 Tests and Research

- 1.16.1 The investigation was unable to establish the reason for the reserve parachute's premature deployment.

1.17 Organizational and Management Information

1.17.1 Available records indicate that the aircraft was correctly maintained as required by the manufacturer and the regulator.

1.18 Additional Information

1.18.1 None

1.19 Useful or Effective Investigation Techniques

1.19.1 None

2. ANALYSIS

2.1 Man:

2.1.1 The pilot of the aircraft was the holder of a valid Commercial Pilot License and rated on the aircraft type.

2.1.2 The injured parachutist had previous skydiving experience and did not have any other incidents prior to the accident.

2.1.3 The reserve parachute deployed prematurely and resulted in the parachutist's early departure from the aircraft.

2.2 Machine:

2.2.1 The aircraft's certificate of Airworthiness was valid

2.2.2 No previous defects were reported regarding the engine or the airframe that could have contributed or have caused the accident.

2.2.3 During the emergency landing the aircraft bounced and the propeller made contact with the runway surface. The propeller and nose wheel were subsequently damaged. The pilot had limited use of his flight controls following the damage sustained to the elevator by the parachutist and manipulated the engine power to control his rate of descent.

2.3 Mission:

2.3.1 This was a normal skydive flight but the premature deployment of the parachutist's reserve parachute led to the eventful series of events.

3. CONCLUSION

3.1 Findings

- 3.1.1 The parachutist was a jump master and had acquired a certain level of experience prior to the jump.
- 3.1.2 The aircraft was serviceable prior to the accident and there were no known defects
- 3.1.3 Prevailing weather conditions at the time of the accident did not have an effect on this accident.

3.2 Probable cause

- 3.2.1 Parachutist impacted the aircraft

3.3 Contributory factors

- 3.3.1 The parachutist's reserve deployed prematurely.

4. SAFETY RECOMMENDATIONS

- 4.1 None

5. APPENDICES

None

Compiled by:

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For: Director of Civil Aviation

Date:

Investigator-in-charge:

Date:

Co-Investigator: ...

Date: