



AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/8154	
Aircraft Registration	ZS-CKH	Date of Accident	23 July 2006		Time of Accident	1500Z
Type of Aircraft	Piper PA24-250		Type of Operation	Private		
Pilot-in-command Licence Type	Private	Age	48	Licence Valid	Yes	
Pilot-in-command Flying Experience	Total Flying Hours	816.47		Hours on Type	Unknown	
Last point of departure	Worcester Aerodrome, Western Cape (FAWC)					
Next point of intended landing	Grabouw Private Aerodrome, Western Cape					
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)						
Mountainous terrain in Grabouw, GPS co-ordinates: S 34 ^o 07.877' E 019 ^o 05.882', elevation 2513 ft						
Meteorological Information	Rain, Cloud base: 500ft and misty.					
Number of people on board	1 + 0	No. of people injured	0	No. of people killed	1	
Synopsis	<p>On 23 July 2006, the aircraft took off from Worcester Aerodrome on a private flight to Grabouw Private Aerodrome. When the aircraft did not land as planned, a search mission was launched. The wreckage of the aircraft was found in the mountains the next day. The pilot was fatally injured in the accident.</p> <p>The reported weather conditions in the area and witness testimony at the time of the accident suggest that the aircraft was flying in adverse weather conditions i.e. instrument meteorological conditions (IMC) prior to the accident. According to available records, the pilot was not instrument rated nor was he night rated. A possible scenario could be that, in an attempt to maintain visual meteorological conditions (VMC) flight in IMC, the pilot might have descended to a lower altitude and flown into a mountain (controlled flight into terrain: CFIT).</p>					
Probable Cause						
The aircraft flew into a mountain during adverse weather conditions (CFIT).						
IARC Date				Release Date		



AIRCRAFT ACCIDENT REPORT

Name of Owner/Operator : Glen Apples CC
Manufacturer : Piper
Model : PA24-250
Nationality : South African
Registration Marks : ZS-CKH
Place : Grabouw, Western Cape
Date : 23 July 2006
Time : 1500Z

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 two 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 23 July 2006 the pilot and his son drove from Grabouw to Worcester Aerodrome (FAWC). The purpose of the trip was for the pilot to collect his aircraft, which he had left in FAWC because he could not enter Grabouw on the previous day due to adverse weather conditions. On arrival at FAWC, the son drove back to wait for the pilot at Grabouw Private Aerodrome and the pilot commenced the flight back with the aircraft.

1.1.2 According to the pilot's son, while waiting for the aircraft to land he could hear the aircraft approaching but could not see it because it was cloudy and misty. After waiting for more than 30 minutes and the aircraft not landing, he attempted to

phone the pilot on his cellular phone, but without success. He then decided to contact the neighbours who live along the aircraft flight path to enquire if they had heard or seen the aircraft flying past, around or overhead. At approximately 1530Z, when there was no news or contact with the pilot, the decision to inform the police and initiate the search for the aircraft was made. The search was not successful, and late that evening they decided to stop the search for the night.

1.1.3 One of the neighbours, who is also a pilot and who assisted with the search using his aircraft the next day, stated that at approximately 1430Z the aircraft was observed flying from a northerly to a southerly direction, heading towards the mountains. A moment later the aircraft turned back to the direction of FAWC. At approximately 1440Z the aircraft was observed orbiting Caledon Aerodrome (FACG) which is 30 nm east of Grabouw. Between 1450Z and 1455Z, the aircraft was observed flying low level along the river pass, and again at approximately 1500Z. Local weather conditions were raining, with a cloud base of 500 ft and reduced visibility.

1.1.4 The next morning, when the weather had cleared, wreckage of the aircraft was found crashed into the mountain. The pilot was fatally injured in the accident. The GPS co-ordinates of the accident site were determined to be S 34° 07.877' E 019° 05.882', at an elevation of 2519 ft.

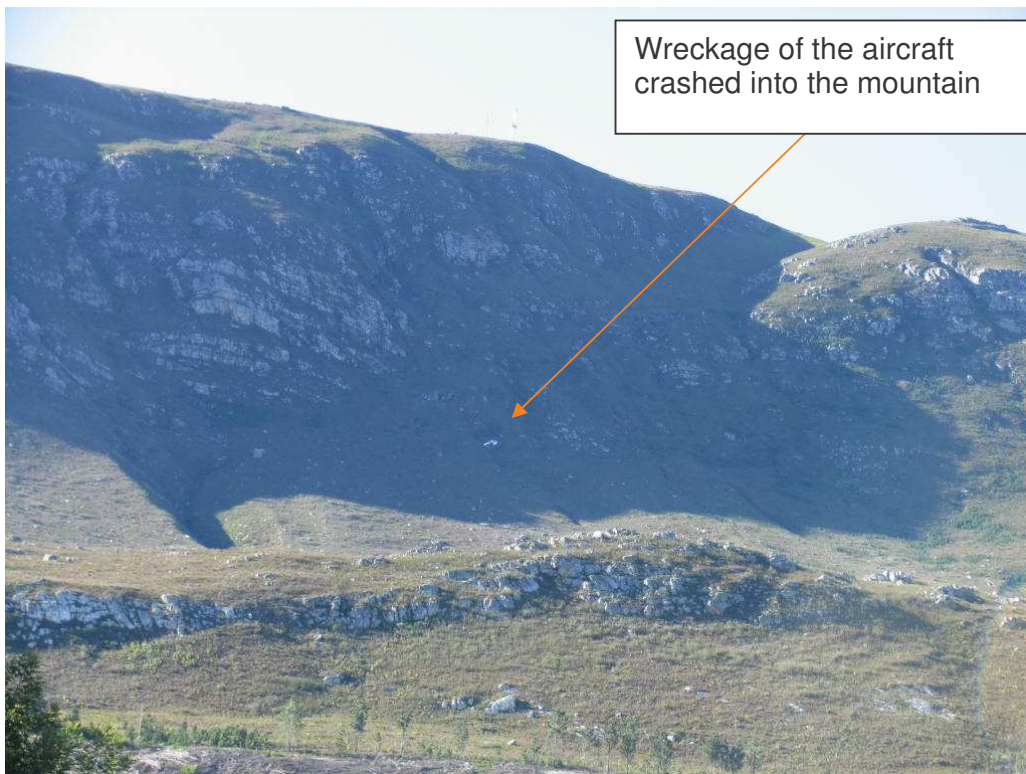


Figure 1: The accident site

1.2 Injuries to Persons

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

1.3 Damage to Aircraft

1.3.1 The aircraft was destroyed by post-impact fire.



Figure 2: Damage to the aircraft

1.4 Other Damage

1.4.1 There was damage to surrounding vegetation.

1.5 Personnel Information

Nationality	South African	Gender	Male	Age	48
Licence Number	*****	Licence Type	Private		
Licence valid	Yes	Type Endorsed	Yes		
Ratings	None				
Medical Expiry Date	31 December 2006				
Restrictions	Corrective lenses				
Previous Accidents	Yes: wheels-up landing on 20 May 2005				

Flying Experience:

The pilot logbook could not be located during the course of the investigation. According to the SACAA records, the pilot had 816.47 hours during his last licence renewal on 04 February 2005.

Total Hours	816.47
Total Past 90 Days	Unknown
Total on Type Past 90 Days	Unknown
Total on Type	Unknown

1.6 Aircraft Information

- 1.6.1 Due to the level of destruction, the investigators were unable to locate the flight folio or a Hobbs meter or tachometer reflecting the airframe hours at the time of the accident.

Airframe:

Type	Piper PA24-250	
Serial Number	24-213	
Manufacturer	Piper	
Year of Manufacture	1958	
Total Airframe Hours (At Time of Accident)	Unknown	
Last MPI (Date & Hours)	07 July 2006	4 372.75
Hours since Last MPI	Unknown	
C of A (Issue Date)	24 February 2006	
C of R (Issue Date) (Present owner)	08 March 2005	
Operating Categories	Standard	

Engine:

Type	Lycoming O-540-E4B5
Serial Number	RL-23288-40A
Hours since New	Unknown
Hours since Overhaul	168.13

Propeller:

Type	Hartzell HC-C3YR-IRF/F 7590
Serial Number	DY 6583B
Hours since New	96.13
Hours since Overhaul	TBO not reached

1.7 Meteorological Information

1.7.1 The official weather report was not obtained from the South African Weather Services. According to the witnesses, the prevailing weather at the estimated time of the accident was reduced visibility, cloud base at approximately 500 ft and misty.

1.8 Aids to Navigation

1.8.1 The aircraft was equipped with standard navigation instrumentation as per manufacture design. None were reported unserviceable prior to or during the accident.

1.9 Communications

1.9.1 No information was available regarding the communication. The pilot never made a distress call.

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

1.10 Aerodrome Information

1.10.1 The accident occurred in mountainous terrain near Grabouw, at an elevation of 2153 ft AMSL. (GPS co-ordinates: S 34°07.877' E 019°05.882')

1.11 Flight Recorders

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

1.12 Wreckage and Impact Information

1.12. The aircraft impacted the mountainside in a straight and level attitude. The nose section impacted first, then both wings collided with rocks, followed by eruption of a post-impact fire. The aircraft was consumed by the fire.

1.13 Medical and Pathological Information

1.13.1 The post-mortem and blood toxicology reports were still outstanding at the time of compiling this report. Should any of the results have a bearing on the circumstances leading to this accident, it will be treated a new evidence that will necessitate the reopening of this investigation.

1.14 Fire

1.14.1 A post-impact fire erupted. The source of the fire was determined to be the fuel tank rupturing and fuel coming into contact with the hot engine, resulting in fire ignition.

1.15 Survival Aspects

1.15.1 When the aircraft did not arrived as planned at the destination, a search mission was instituted. However, due to low visibility in the mountains, the wreckage was not located until the next morning when the weather had cleared.

1.15.2 The high-impact forces associated with this accident led to the destruction of the cabin and the post-impact fire destroyed aircraft. The pilot was exposed to high impact forces and fire during the accident sequence. The accident is considered not

survivable.

1.16 Tests and Research

1.16.1 During the on-site investigation, the airframe could not be inspected because it was consumed by fire. The assessment of the wreckage indicated that the aircraft was still intact when it crashed onto the mountain, and there seem to have been no controllability problems.

1.16.2 An assessment of the propeller indicated that the aircraft engine had full power when it collided with the mountain.



Figure 3: The propeller damage

1.17 Organisational and Management Information

1.17.1 This was a private flight.

1.17.2 The aircraft maintenance organisation (AMO) that certified the last mandatory periodic inspection (MPI) on the aircraft prior to the accident was correctly licensed and had authority to perform maintenance on the aircraft type.

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 took off from Worcester Aerodrome on a private flight to Grabouw Private Aerodrome. When the aircraft did not land as planned, a search mission was instituted. The wreckage of the aircraft was found in the mountains the morning of the following day. The pilot was fatally injured in the accident.
- 2.2 There was no evidence of maintenance anomalies and/or defects experienced and reported by the pilot prior to the flight.
- 2.3 The pilot was appropriately rated on the aircraft type. He had one previous incident or accident. His flight medical was also valid.

The reported weather conditions in the area and the witness testimony at the time of the accident suggest that the aircraft was flying in adverse weather conditions i.e. instrument meteorological conditions (IMC) prior to the accident. According to available records, the pilot was neither instrument rated nor night rated. A possibility could be that in an attempt to maintain visual meteorological condition (VMC) flight in IMC, the pilot might have descended and flown the aircraft into the mountain (control flight into terrain: CFIT).

3. CONCLUSION

3.1 Findings

- 3.1.1 The pilot was licensed and qualified for the flight in accordance with existing regulations.
- 3.1.2 The maintenance records indicated that the aircraft was equipped and maintained in accordance with existing regulations and approved procedures.
- 3.1.3 Weather was considered a factor in this accident.

3.1.4 The aircraft flew into the mountain during adverse weather conditions.

3.2 Probable Cause/s

3.2.1 The aircraft flew into the mountain during adverse weather conditions (CFIT).

4. SAFETY RECOMMENDATIONS

4.1 None.

5. APPENDICES

5.1 None

Report reviewed and amended by Advisory Safety Panel: 25 August 2009.

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