

AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/8387	
Aircraft Registration	ZS-GVR	Date of Accident	10 November 2007		Time of Accident	08:35Z
Type of Aircraft	UFM-10 Samba		Type of Operation		Private	
Pilot-in-command Licence Type	PPL Foreign Validation	Age	56	Licence Valid	Yes	
Pilot-in-command Flying Experience	Total Flying Hours	Unknown		Hours on Type	Unknown	
Last point of departure	Brits Aerodrome North-West Province					
Next point of intended landing	Brits Aerodrome North-West Province					
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)						
Private farm, approximately 6 nm north of Brits Aerodrome. GPS Position: 25°27' 28.79" E027° 46' 05.28"						
Meteorological Information	The weather conditions were fine; Temp: 27° C, Wind 190°/7 kt; with no clouds.					
Number of people on board	1 + 0	No. of people injured	0	No. of people killed	1	
Synopsis						
<p>According to available information submitted by the aircraft owner, the pilot, a German citizen, arrived at Brits Aerodrome on 10 November 2007 at approximately 0730Z in order to carry out a local private flight. He carried out a pre-flight inspection on the aircraft and taxied the aircraft to the holding point of Runway 20 where he carried out the pre-take-off checks.</p> <p>At approximately 0816Z, the pilot took off from Runway 20 and climbed steeply, whereafter the pilot made a left hand turn-out and headed in a northerly direction towards the Dikhololo area.</p> <p>Approximately 5 to 10 minutes after the pilot took off from Brits Aerodrome, the aircraft was observed by a witness that was travelling on the road, executing low level turns at low speeds to the left and right at approximately 300 to 400 ft agl over Sable Range, approximately 6nm north of Brits Aerodrome. After a few turns, the nose of the aircraft suddenly pitched up. The pilot appeared to correct the nose up situation. The aircraft then banked to the right. The left wing suddenly dropped approximately 90 degrees and the aircraft went into a spin with rapid loss of height. The aircraft stopped rotating at about tree height of approximately 35 m with virtually no forward speed. The aircraft fell straight down amongst tall trees and bushes and hit the ground in a flat attitude without colliding with any trees or bushes. The engine was still running on impact with the ground. The pilot remained strapped into his seat with the three-point harness, but was fatally injured on impact.</p> <p>The aircraft was destroyed during the impact sequence.</p>						
Probable Cause						
<p>During the execution of left and right turns at a low level the aircraft stalled and entered a spin from which the pilot was unable to recover in the height remaining.</p>						
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AIRCRAFT ACCIDENT REPORT

Name of Owner/Operator : Samba Syndicate CC
Manufacturer : Urban Air S.R.O
Model : UFM-10 Samba
Nationality : South Africa
Registration Marks : ZS-GVR
Place : Private farm approximately 6nm north
of Brits Aerodrome
Date : 10 November 2007
Time : 08:35Z

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:

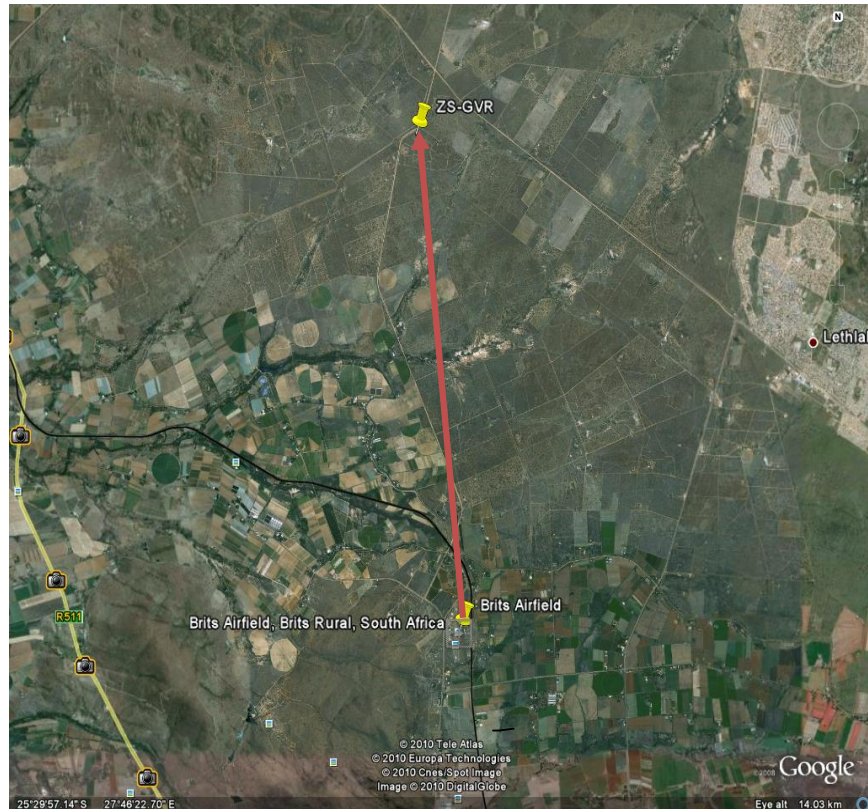
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1. FACTUAL INFORMATION

1.1 History of Flight

- 1.1.1 According to available information submitted by the aircraft owner, the pilot, a German citizen, arrived at Brits Aerodrome on 10 November 2007 at approximately 0730Z for a local private flight. He carried out a pre-flight inspection on the aircraft and taxied the aircraft to the holding point of Runway 20 where he carried out pre-take-off checks.
- 1.1.2 At approximately 0816Z, the pilot took off from Runway 20 and the aircraft climbed steeply, whereafter the pilot made a left turn-out and headed in a northerly direction towards the Dikhololo area.
- 1.1.3 Approximately 5 to 10 minutes after the pilot took off from Brits Aerodrome, the aircraft was observed by a witness that was travelling on the road, executing low-level manoeuvre turns at low speeds to the left and right over the Sable Range area approximately 6nm north of Brits Aerodrome. After a few turns, the nose of the aircraft suddenly pitched up. The pilot appeared to correct the nose-up situation.

The aircraft then banked to the right, the left wing suddenly dropped to approximately 90 degrees and the aircraft went into a flat spin with rapid loss of height. The aircraft stopped rotating at about tree height of approximately 35 m with virtually no forward speed. The aircraft fell straight down amongst tall trees and bushes and hit the ground in a flat attitude without colliding with any trees or bushes. The engine was still running on impact with the ground surface. The pilot remained strapped into his seat with the three-point harness but was fatally injured on impact.



**FIGURE 1: SHOWING WHERE THE AIRCRAFT TOOK OFF FROM BRITS AIRFIELD
& WHERE THE ACCIDENT OCCURRED ABOUT 4- 6 NM FROM BRITS AIRFIELD.**

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 during the impact sequence

1.4 Other Damage

1.4.1 No other damage was caused to property or persons on the ground.

1.5 Personnel Information

Nationality	German	Gender	Male	Age	56
Licence Number	*****	Licence Type		Private	
Licence valid	Yes.	Type Endorsed		Validation	
Ratings	None				
Medical Expiry Date	Unknown				
Restrictions	Unknown				
Previous Accidents	Unknown				

1.5.1 According to available information the pilot was born on 17 February 1951 and was employed as a Captain by an Airline in Germany. His ATPL was valid on B747-400 with the expiry date being 10 January 2008. However, no further information regarding his type ratings on other aircraft in Germany was available.

1.5.2 According to SACAA records, the pilot was issued with a South African Private Pilot Licence validation on 8 January 2007 with the expiry date being 7 January 2008.

1.5.3 In terms of South African Civil Aviation Regulations, the holder of a validated licence is authorised to exercise the privileges of the holder's valid licence as issued by an ICAO contracting State in terms of Annexure 1 of the Convention on International Civil Aviation. This validation should be accompanied by a valid foreign licence and medical certificate.

1.5.4 The aircraft flight folio showed that the pilot had previously flown 55 minutes on the Samba on 8 January 2007.

1.5.5 It must be noted that there is no available documentation in order to determine the foreign pilot's flying experience.

Flying Experience:

Total Hours	Unknown
Total Past 90 Days	Unknown
Total on Type Past 90 Days	Unknown
Total Dual on Type	Unknown
Total Solo on Type	Unknown
Total on Type	Unknown

1.6 Aircraft Information

Airframe:

Type	UFM-10 Samba	
Serial Number	12/10/2001	
Manufacturer	Urban Air SRO; Czech	
Date of Manufacture	2001	
Total Airframe Hours (At time of Accident)	+ 680,0	
Last Annual Inspection (Hours & Date)	635:0	17 February 2007
Hours since Last Annual Inspection	45,0	
Authority to Fly (Issue Date)	18 November 2005	
Authority to Fly (Expiry Date)	18 November 2006	
C of R (Issue Date) (Present owner)	17 July 2001	
Operating Categories	Private	

1.6.1 According to the CAA records, the last entry in the aircraft file was on 2 March 2006. No further entry was made thereafter.

1.6.2 The flight folio for the aircraft showed that an Annual 100-hour inspection was carried out on 17 February 2007. According to the Soaring Society of South Africa (SSSR), the last Authority to fly for the aircraft was issued on 18 November 2005 with the expiry date being 18 November 2006.

Engine:

Type	Rotax 912 ULS
Serial Number	442 7181
Hours since New	+680.0
Hours since Overhaul	TBO not reached

Propeller :

Type	Woodcomp Variable
Serial Number	PA 0299 185 516013
Hours since New	+680,0
Hours since Overhaul	TBO not reached

1.6.1 Introduction of the Samba aircraft:

1.6.1.1 The aircraft is a non-aerobatic two-seater ultra-light aircraft designed for recreational flying in VFR daytime conditions.

1.6.1.2 The standard power unit was a Rotax engine delivering 100 BHP, driven by a manual adjustable 2-bladed composite propeller. The aircraft was equipped two wing tanks with a total fuel capacity of 100 litres.

1.7 Meteorological Information

1.7.1 WEATHER CONDITIONS AT THE TIME OF ACCIDENT/INCIDENT SURFACE ANALYSIS (0900Z 10 NOVEMBER 2007)

The Automatic Weather Station for Brits records over a period of two hours, the estimated time of the accident in the Dikhololo Game Lodge near Brits in the North-West Province on 10 November 2007, indicated the weather information as follows:

Location	Time	Wind	Temperature	Visibility	Cloud
FARG-Brits	0900Z	190°/07	27°C	Good	Nil

1.8 Aids to Navigation

1.8.1 The aircraft was fitted with the standard navigational instrumentation as per manufacturer's design. None was reported unserviceable during the flight or prior to the accident.

1.9 Communications

1.9.1 The aircraft was equipped with a Microair Radio.

1.9.2 There was no communication on radio frequency 124,8 MHz by the pilot prior to the accident.

1.10 Aerodrome Information

1.10.1 The accident did not occur at an aerodrome but on a private farm with tall trees and bushes approximately 4 to 6nm north of Brits Aerodrome at a GPS position of S25° 27' 28.79" E027° 46' 05.28"

1.11 Flight Recorders

1.11.1 The aircraft was not fitted with a cockpit voice recorder (CVR) or a flight data recorder (FDR) nor was either required by regulation.

1.12 Wreckage and Impact Information

1.12.1 The aircraft went into a spin and impacted the ground in a flat attitude with virtually no forward speed, between tall trees and bushes. The aircraft wreckage remained virtually intact on impact with the ground.



FIGURE 2: SHOWING AIRCRAFT INTACT WITH PROPELLER DAMAGED.

1.12.2 The aircraft was destroyed during the impact sequence.

1.13 Medical and Pathological Information

1.13.1 According to the Autopsy Report submitted, the cause of death was caused by multiple injuries sustained during the accident.

1.14 Fire

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

1.15 Survival Aspects

1.15.1 The pilot was properly secured with the three-point harnesses fitted to the aircraft, but due to the high vertical impact forces, the accident was considered not survivable.

1.16 Tests and Research

1.16.1 None.

1.17 Organizational and Management Information

1.17.1 This was a private flight.

1.17.2 The flight folio for the aircraft showed that the last annual Inspection was carried out by an Approved Person (AP) at a total of 635,2 airframe hours on 17 February 2007.

1.17.3 According to the SACAA records, the last entry in the aircraft file was on 2 March 2006. No further entry was made thereafter.

1.17.4 According to the Soaring Society of South Africa (SSSA) the Authority to fly for the aircraft was issued 18 November 2005, with the expiry date being 18 November 2006.

1.18 Additional Information

1.18.1 A Panasonic SLR Camera was found in the cockpit. It can only be assumed that the pilot was taking photos or intended to take photos during the flight.

1.19 Useful or Effective Investigation Techniques

1.19.1 None.

2. ANALYSIS

2.1 The pilot was observed to execute left and right turns at a low height above ground level. During these manoeuvres the aircraft's forward speed reduced, resulting in a stall followed by a flat spin. Because of the low height above the ground, the pilot

was unable to recover from this situation in the height available.

- 2.2 All the flight controls were operating properly before the accident.
- 2.3 In terms of South African Civil Aviation Regulations, the holder of a validated licence is authorised to exercise the privileges of the holder's valid licence as issued by an ICAO contracting State in terms of Annexure 1 of the Convention on International Civil Aviation. This validation should be accompanied by a valid foreign licence and medical certificate.
- 2.4 According to SACAA records, the pilot was issued with a Foreign Licence validation of his German Pilot's Licence on 8 January 2007 with an expiry date of 7 January 2008. The privileges of the validation were restricted to the exercising of private pilot privileges only when flying a South African registered aircraft.
- 2.5 Review of the relevant SACAA records could not provide any information as to the pilot's flying experience or to the of aircraft types that the pilot was rated on. However, the aircraft flight folio showed that the pilot had previously flown 55 minutes on the Samba on 8 January 2007 in South Africa. It is presumed that he was appropriately rated to fly the Samba aircraft in terms of the privileges of his German licence.

3. CONCLUSION

3.1 Findings

- 3.1.1 The pilot took off from Brits Aerodrome on a local flight and headed in a northerly direction where he executed several low-level turn manoeuvres at low forward speeds when the accident occurred.
- 3.1.2 The weather was fine at the time of the accident.
- 3.1.3 According to available information the pilot was born on 17 February 1951 and was employed as a Captain by a German airline.
- 3.1.4 According to SACAA records, the pilot was issued with a Foreign Licence validation of his German Pilot's Licence on 8 January 2007 with an expiry date of 7

January 2008. The privileges of the validation were restricted to the exercising of private pilot privileges only when flying a South African registered aircraft.

3.1.5 From review of the relevant SACAA records it could not be verified that the pilot was type rated on the Samba aircraft in terms of his German licence.

3.1.6 According to the CAA records, the last entry into the aircraft file was on 2 March 2006 with no further entries thereafter.

3.1.7 The flight folio for the aircraft showed that an annual 100-hour inspection was carried out on 17 February 2007 by an AP of the Aero Club of South Africa.

3.1.8 According to the Soaring Society of South Africa (SSSA), the Authority to Fly for the aircraft was not valid as the Authority to Fly was issued on 18 November 2005 with the expiry date being 18 November 2006.

3.2 Probable Cause/s

3.2.1 During the execution of left and right turns at a low level the aircraft stalled and entered a spin from which the pilot was unable to recover in the height remaining.

4. SAFETY RECOMMENDATIONS

It is recommended that the Director of Civil Aviation should:

4.1 Require the SACAA Communications Departments to promote awareness of the dangers associated with low flying; and

4.2 Require the SACAA Licensing Department to review the validation procedures to ensure retention of comprehensive foreign licence documentation;

5. APPENDICES

5.1 None

Report reviewed and amended by the Advisory Safety Panel 19 October 2010.

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