



## AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/7682	
<b>Aircraft Registration</b>	<b>ZS-WBV</b>	<b>Date of Accident</b>	26 July 2003	<b>Time of Accident</b>	1530Z	
<b>Type of Aircraft</b>	Windlass Trike (Microlight)		<b>Type of Operation</b>	Private		
<b>Pilot-in-command Licence Type</b>		Microlight	<b>Age</b>	40	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>		Total Flying Hours	166	Hours on Type	150.2	
<b>Last point of departure</b>		Louis Trichardt Aerodrome				
<b>Next point of intended landing</b>		Louis Trichardt Aerodrome				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>						
In a bushy terrain east of Runway 10/28 at Louis Trichardt						
<b>Meteorological Information</b>		The weather was fine with no wind				
<b>Number of people on board</b>	1+1	<b>No. of people injured</b>	0	<b>No. of people killed</b>	2	
<b>Synopsis</b>						
<p>On 26 July 2003, the pilot of a microlight aircraft provided pleasure flights for some of his friends. The sequence of the flights prior to the accident flight were all the same, after take-off from the intersection of Runway 10, the microlight turned right, positioned on a right-hand down-wind and just before turning, base-leg spiralled down to lose height before positioning for a landing. During the last flight, the witness observed the aircraft losing height during the spiral turn; however, the aircraft impacted with the ground. The occupants on board were fatally injured.</p>						
<b>Probable Cause</b>						
<p>The accident was attributed to a spiral turn which was executed at too low an altitude from which a recovery was not possible, and the microlight impacted with the ground.</p>						
<b>IARC Date</b>				<b>Release Date</b>		



## AIRCRAFT ACCIDENT REPORT

**Name of Owner/Operator** : H Du Plooy  
**Manufacturer** : Solo Wings CC  
**Model** : Windlass Trike  
**Nationality** : South Africa  
**Registration Marks** : ZS-WBV  
**Place** : Louis Trichardt Aerodrome  
**Date** : 26 July 2003  
**Time** : 0330Z

*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 interests 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 According to a witness who was a passenger prior to the accident flight, the pilot was engaged in taking some of his friends for pleasure flights. The sequence of the flights prior to the accident flight were all the same, after take-off from the intersection of Runway 10, the Microlight turned right, positioned on a right-hand down-wind and just before turning, base-leg spiralled down to lose height before positioning for a landing. During the last flight, the witness observed the aircraft losing height during the spiral turn, whereupon the aircraft impacted with the ground. Both occupants were fatally injured.

1.1.2 The accident occurred in daylight conditions.

### 1.2 Injuries to Persons

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

### 1.3 Damage to Aircraft



Figure1: Showing the damage to the microlight aircraft.

1.3.1 The aircraft was destroyed in the accident.

### 1.4 Other Damage

1.4.1 There was no other damage.

### 1.5 Personnel Information

Nationality	South African				
Licence No	*****	Gender	Male	Age	40
Licence valid	Yes	Type Endorsed	Yes		
Ratings	None				
Medical Expiry Date	31 December 2003				
Restrictions	None				
Previous Accidents	None				

Flying Experience:

Total Hours	166
Total Past 90 Days	Unknown
Total on Type Past 90 Days	Unknown
Total on Type	150.2

**Note:** This information was obtained from the pilot's logbook dated 31 December 2000. No further entries were made since 31 December 2000.

## 1.6 Aircraft Information

**Airframe:**

Type	Windlass Trike
Serial Number	WL100
Manufacturer	Solo Wings CC
Year of Manufacture	1988
Total Airframe Hours (At time of Accident)	Unknown
Authority to fly (Issue Date)	No Authority to fly
C of R (Issue Date) (Present owner)	17 July 2003
Operating Categories	Private

**Engine :**

Type	Rotax 503
Hours since New	Unknown
Hours since Overhaul	Unknown

**Propeller:**

Type	Ultra Prop
Hours since New	Unknown
Hours since Overhaul	Unknown

The total airframe hours, engine hours and propeller hours could not be ascertained because the available aircraft maintenance records were found to have been last updated on 30 April 1996.

## 1.7 Meteorological Information

1.7.1 The witnesses stated that the weather was fine, with no wind.

## 1.8 Aids to Navigation

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



## 1.9 Communications

1.9.1 There was no evidence of any communication between the aircraft and any other source prior to the accident.

## 1.10 Aerodrome Information

Aerodrome Location	Louis Trichardt	
Aerodrome Co-ordinates	S23°05'00 E 29°52'00	
Aerodrome Elevation	3025ft	
Runway Designations	10/28	
Runway Dimensions	1200x18	
Runway Used	10	
Runway Surface	Asphalt	
Approach Facilities	None	

1.10.1 The accident occurred in a bushy terrain east of Runway 10/28 at Louis Trichardt civil aerodrome.

## 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 The aircraft lost height during the spiral turn and impacted with the ground. The microlight was destroyed by impact forces.



Figure 2: shows the wreckage as found on the accident site.

### **1.13 Medical and Pathological Information**

1.13.1 Numerous attempts were made, in vain, to obtain the autopsy report. It was decided that the report should be produced without the autopsy report, because was considered as not having a bearing on the cause 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 Due to the exposure of the occupants to high impact forces (as allowed by the design of the trike) the accident was considered to be a non-survivable accident.

### **1.16 Tests and Research.**

1.16.1 During the on-site investigation the following was found:

1.16.1.1 The left wing leading edge had failed approximately 60 cm from the tip. All the cables were connected.

1.16.1.2 The right hand wing leading edge had failed approximately 1.5 metres from the tip.

1.16.1.3 The king post failed at 2 places.

1.16.1.4 All luff lines were attached (no failures).

### **1.17 Organizational and Management Information**

1.17.1 This was a private flight (pleasure).

1.17.3 An Authority to Fly was issued by the SACAA with an expiry date of 29 November 1996. No record of any subsequent issuance of any Authority to Fly could be traced.

### **1.18 Additional Information**

1.18.1 During the on-site investigation it was noted that aircraft registration markings were not displayed on the microlight.

### **1.19 Useful or Effective Investigation Techniques**

1.19.1 None.

## **2. ANALYSIS**

- 2.1 The pilot was engaged in taking some of his friends for pleasure flights. The sequence of the flights prior to the accident flight were all the same; after take-off from the intersection of Runway 10, the microlight turned right, positioned on a right-hand down-wind and just before turning, base-leg spiralled down to lose height before positioning for a landing. During the last flight, the witness observed the aircraft losing height during the spiral turn, whereupon the aircraft impacted with the ground.
- 2.2 Although the microlight aircraft had no valid Authority to Fly, there was no evidence of maintenance anomalies and/or defects reported, relevant to the microlight aircraft prior to the flight. There was no record found to indicate the total airframe hours of the microlight aircraft.
- 2.3 The pilot had 150.2 hours of experience on the aircraft type. He had no previous incidents or accidents. His flight medical was also valid.
- 2.4 On reviewing the sequence of events and also the flights that took place prior to this accident flight, it is possible that during the preceding flight the spiral manoeuvres were performed at a higher altitude. During the last flight, the microlight was not positioned at the same altitude as the preceding flights and on the accident flight the spiral turn was executed at a lower altitude. As a result the recovery could not be possible from that height and the microlight impacted with the ground.

## **3. CONCLUSION**

### **3.1 Findings**

- 3.1.1 The pilot was the holder of a valid microlight pilot's licence.
- 3.1.2 The aircraft had no valid Authority to Fly at the time of the accident.
- 3.1.3 The microlight aircraft had no registration markings displayed.
- 3.1.4 The weather was not considered to be a factor in this accident.
- 3.1.5 The microlight aircraft entered into a spiral turn and crashed into the ground.

### **3.2 Probable Cause/s**

- 3.2.1 The accident was attributed to a spiral turn which was executed at a lower altitude from which a recovery was not possible, and the microlight impacted with the ground.

#### **4. SAFETY RECOMMENDATIONS**

4.1 The SACAA should refer this accident to RAASA with the purpose of increasing safety oversight over microlight aircraft.

#### **5. APPENDICES**

5.1 None

-END-

Report reviewed and amended by the Advisory Safety Panel  
24 February 2009.