

<b>AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY</b>
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				Reference:	CA18/2/3/9316	
<b>Aircraft Registration</b>	ZU-IAY	<b>Date of Accident</b>	27 April 2014		<b>Time of Accident</b>	0515Z
<b>Type of Aircraft</b>	Bat Hawk (Amateur Aircraft)		<b>Type of Operation</b>	Private		
<b>Pilot-in-command Licence Type</b>		Commercial Pilot License	<b>Age</b>	46	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>		Total Flying Hours	1618.0		Hours on Type	12.1
<b>Last point of departure</b>		Witbank aerodrome (FAWI) Mpumalanga province				
<b>Next point of intended landing</b>		Witbank aerodrome (FAWI) Mpumalanga province				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>						
To the Right of Runway 04 at Witbank aerodrome (GPS position S25°49'56" E029°11'31")						
Wind: Visibility: Temperature: Dew point: Cloud cover: Cloud base:		Wind: 350°2-6 knots, Visibility: 10000m, Temperature: 12°C, Dew point: Unknown, Cloud cover: None, Cloud base: None.				
<b>Number of people on board</b>	1+1	<b>No. of people injured</b>	0	<b>No. of people killed</b>	0	
<b>Synopsis</b>						
<p>The pilot stated that on 27 April 2014, while conducting touch and go landings at Witbank aerodrome, he lost directional control after take-off from Runway 04 and collided with shrubs to the right of the runway.</p> <p>The aircraft was substantially damaged during the sequence of the accident.</p> <p>Neither the pilot nor his passenger was injured during the sequence of the accident.</p> <p>The investigation revealed the pilot loss directional control of the aircraft during the take-off sequence.</p>						
<b>Probable Cause</b>						
Loss of directional control during take-off.						
IARC Date			Release Date			

## AIRCRAFT ACCIDENT REPORT

**Name of Owner** : Drillcon (PTY) LTD  
**Name of Operator** : E Maasdorp  
**Manufacturer** : Micro Aviation SA  
**Model** : Bat Hawk (Amateur Aircraft)  
**Nationality** : South African  
**Registration Marks** : ZU-IAY  
**Place** : Witbank aerodrome  
**Date** : 27 April 2014  
**Time** : 0515Z

*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 27 April 2014, at 0515Z, a Bat Hawk aircraft, registration ZU-IAY, took off from Witbank aerodrome on a private flight with the intention of landing back at Witbank aerodrome. The private flight was being conducted under visual meteorological conditions (VMC) by day.
- 1.1.2 The pilot stated that he was conducting touch and go landings of Runway 04 at Witbank aerodrome.
- 1.1.3 During his last touch and go, while rotating, he experienced a gust of wind resulting in a loss of directional control allowing the aircraft to veer to the right of the runway

and collided with a shrub to the right of Runway 04 at Witbank aerodrome and thereafter with the ground at an elevation of 5078 feet.

## 1.2 Injuries to Persons

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

## 1.3 Damage to Aircraft

1.3.1 The aircraft was substantially damaged during the sequence of the accident.



**Fig. 1** Damage caused to the aircraft as a result of the accident.

1.3.2 Damage was caused to the propeller, 1<sup>st</sup> riser, wing and nose section of the aircraft.

## 1.4 Other Damage

1.4.1 Damage was caused to a shrub bush situated to the right of the runway.



**Fig.2** Damage was caused to shrub bush on the side of the runway.

## 1.5 Personnel Information

Nationality	South African	Gender	Male	Age	46
Licence Number	0272248784	Licence Type	Commercial pilot		
Licence valid	Yes	Type Endorsed	Yes		
Ratings	Night rating, Instrument rating, Instructor rating (Gr II).				
Medical Expiry Date	30 March 2015				
Restrictions	Corrective Lenses				
Previous Accidents	None				

Flying Experience :

Total Hours	1618
Total Past 90 Days	101
Total on Type Past 90 Days	12.1
Total on Type	12.1

## 1.6 Aircraft Information

### Airframe:

Type	Bat Hawk	
Serial Number	MA13-32	
Manufacturer	Micro Aviation SA	
Year of Manufacture	2014	
Total Airframe Hours (At time of Accident)	18 hours	
Last Annual Inspection (Date & Hours)	17 February 2014	18 Hours
Hours since Last Annual Inspection	0	
Authority to Fly (Issue Date)	25 February 2014	
C of R (Issue Date) (Present owner)	17 January 2014	
Operating Categories	Standard	

### Engine:

Type	Jabiru 3300A
Serial Number	33A 2610
Hours since New	18 hours
Hours since Overhaul	TBO not yet reached

### Propeller:

Type	Brent Thompson
Serial Number	132 64x411
Hours since New	18 hours
Hours since Overhaul	TBO not yet reached

### Aircraft Weight calculation

Aircraft empty weight	267 kg
Pilot	80 kg
Passenger	115 kg
Fuel	29 kg
<b>Total</b>	<b>491 kg</b>

At the time of the accident, the aircraft was operated at 491 kg which is 49 kg below

the maximum certified take-off weight of 540 kg.

## 1.7 Meteorological Information

The weather information was obtained from the pilot questionnaire but was verified with a weather report from the SA Weather service.

Wind direction	350°T	Wind speed	2-6knots	Visibility	10000m
Temperature	12°C	Cloud cover	None	Cloud base	None
Dew point	Unknown				

## 1.8 Aids to Navigation

1.8.1 The aircraft was equipped with standard navigational equipment as approved by the Regulator. There were no recorded defects to the navigational equipment prior to the flight.

## 1.9 Communications.

1.9.1 The aircraft was equipped with standard communication equipment as approved by the Regulator. There were no recorded defects to the communication equipment prior to the flight.

1.9.2 The pilot did communicate his intentions on very high frequency (VHF) 123.5 MHz.

## 1.10 Aerodrome Information

The accident happened at Witbank aerodrome (FAWI).

Aerodrome Location	3 Nm North West of Witbank	
Aerodrome Co-ordinates	S 25°50'0" E 029°11'36"	
Aerodrome Elevation	5078 ft	
Runway Designations	04/22	N/A
Runway Dimensions	1260x11m	N/A
Runway Used	04	
Runway Surface	Asphalt	
Approach Facilities	VOR	

## 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 Final position of the flight path

As this was not an onsite investigation, the site and wreckage distribution is not known to the investigator.

## **1.13 Medical and Pathological Information**

### 1.13.1 Neither the pilot nor his passenger was injured during the sequence of the accident.

## **1.14 Fire**

### 1.14.2 There was no pre- or post-impact fire.

## **1.15 Survival Aspects**

### 1.15.1 The accident was considered survivable due to the low kinetic forces associated with the accident and the pilot and passenger wearing their harnesses during flight.

## **1.16 Tests and Research**

### 1.16.1 None

## **1.16 Organizational and Management Information**

### 1.17.1 The last Annual inspection before the accident was certified on 17 February 2014 at 18 airframe hours by a SACAA approved Aircraft Maintenance Organization (AMO) that was in possession of a valid AMO certificate.

## **1.18 Additional Information**

### 1.18.1 None.

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

### 1.19.1 None.

## **2. ANALYSIS**

### **2.1 Man (Pilot)**

The pilot was the holder of a valid Commercial license at the time of the accident and had the aircraft type endorsed on it. The pilot was in possession of a valid medical certificate at the time of the accident. The pilot's total flying experience at the time of the accident was 1618 hours of which 12.1 hours were on the Bat Hawk.

### **2.2 Machine**

Maintenance documents revealed the airframe and engine was properly maintained and all work carried out was properly certified. The last annual inspection prior to the accident flight was on 17 February 2014 at 18 airframe hours by a SACAA approved Maintenance Organization (AMO) which was in possession of a valid AMO certificate.

At the time of the accident the aircraft was operated at a weight of 491 kg which is 49 kg below the certified maximum all up weight.

### **2.3 Environment**

From the weather data obtained, it is evident that fine weather conditions prevailed at the time of the accident however the wind was reported to gust between 2 and 6 knots.

## **3. CONCLUSION**

### **3.1 Findings**

3.1.1 The pilot was properly certified and qualified to perform this flight and had the aircraft type endorsed on his license.

3.1.2 The aircraft had a valid Authority to Fly and was recorded as being serviceable at the time of the accident.

3.1.3 The aircraft was operated within the maximum certified take-off weight limitation at the time of the accident.

3.1.3 The pilot allowed the aircraft to veer to the right after take-off. The pilot could not



correct the loss of directional control before the aircraft collided with a shrub bush to the right of the runway.

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

Loss of directional control during take-off.

## **4. SAFETY RECOMMENDATIONS**

4.1 None.

## **5. APPENDICES**

5.1 None.