



THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF COMMUNICATIONS AND TRANSPORT  
ACCIDENT INVESTIGATION BRANCH

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DAR ES SALAAM

# AIB Bulletin

AIB Bulletin No.                      Ref.: CAV/ACC/8/02                      Category: 1.3

Aircraft Type & Reg.:              Cessna 150G                      Reg. 5H-MPW                      Serial No. 66420

No. & type of Engines:              One Continental O-200-A

Year of Manufacture:              1967

Date and Time (UTC):              28 October 2002 at 0647 hours

Location:                              Songea Airport (10° 48.89' S 35° 35.01' E)

Type of Flight:                        Private

Persons on Board:                    Crew - 1                              Passengers - 1

Injuries:                                Crew - Minor                        Passengers - Nil

Nature of Damage:                    The aircraft was extensively damaged. Probable write off

Commander's Licence:                Private Pilot's license

Commander's Age:                    34 years

Commander's Experience: 130 hours of which 64 were on type

                                                  Last 90 days 13.5 hrs

                                                  Last 28 days 12.5 hrs

Information Source:                    Telephone call from Songea ATS

**ALL TIMES UTC**

## History of the Flight

On 28 October 2002 at 0300 hours 5H-MPW took off from Mangazini airstrip (located on the Tanzania – Mozambique border) and landed at Songea airport at 0425 hours. It was carrying one pilot and one passenger. The purpose of the flight was to collect 20 litres of aircraft engine oil which had arrived from Dar es Salaam.

The Bulletin contains facts relating to the accident which have been determined up to the time of issue. This information is published to inform the public and the aviation industry of the general circumstance of the accident at the preliminary stage and must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available.

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The two occupants proceeded to town and returned with food supplies, which the pilot estimated at 4 – 5Kg. The pilot topped up the engine oil from a 20-litre jerry can after which he requested permission to take-off for Mangazini. He was subsequently cleared for take-off from runway 14. The pilot testified that he chose runway 32 after observing the windsock and the national flag on the apron.

Take-off for Mangazini was initiated at 0646 hours from the threshold of runway 32. The take off roll appeared normal and 5H-MPW lifted off less than halfway down the runway. Observers who were on the apron said that shortly after take-off and when the aircraft was still above the runway it was seen yawing as if it was being blown out of the sky by the wind.

The pilot himself reported that the take off roll and the initial climb were normal. When he had climbed to about 200 feet above ground level the engine suffered a partial loss of power and the RPM dropped to about 2100 causing him to force-land on a terraced maize field on his left.

During the landing roll the aircraft struck an anthill, which sheared off the nose landing gear causing the propeller to dig in, and the aircraft to tip on its back before it came to rest. The passenger disembarked uninjured but the pilot sustained a minor injury to his chin. There was no third party damage. A small fire was seen on the engine but was quickly extinguished by the airport fire brigade.

Eyewitnesses who were at the apron did not hear any change in the engine noise. However, some people who were at a school located beyond runway 32 reported to have heard an unusual engine sound.

### **The Weather**

At 0600 hours there was a 12 kt wind from 040° and the temperature was 23° C. It was a bright sunny day.

### **Weight and Balance**

The weight of the aircraft at the time of the accident was estimated as follows:

Aircraft empty weight ( <i>Weight schedule, Dec. 2000</i> )	1157	Lb
Fuel	230	
Pilot (80 kg)	176	
Passenger (75 kg)	165	
Engine Oil	42	
Food Supplies	<u>10</u>	
<b>Take Off Weight</b>	<b>1780</b>	<b>Lb</b>
Maximum allowed take-off weight	<u>1600</u>	
<b>Overload</b>	<b>180</b>	<b>Lb</b>

### Examination of the Wreckage

The aircraft was found lying on its back in a terraced maize field about 300 metres bearing 315° from the end of runway 32. The maize crop had already been harvested.

The fin, having been dragged on the ground when the aircraft somersaulted, was extensively damaged. However, there was no damage to both horizontal stabilizers. Both wings were damaged when the aircraft tipped over. There was fuel spillage but no fuel-fed fire broke out.

The propeller was bent at one tip. However, it showed no rotational damage and there were no ground slash marks indicating that it was not under power at the time of the impact with the ground. The pilot reported that he shut down the engine and switched off the fuel just before touch down. It would appear that when the nose landing gear struck an ant hill and separated in the accident sequence, the propeller dug in causing the engine to shear off its mounting frame tubes and the aircraft to tip on its back.

### Songea Airport

Songea airport, elevation 3445 feet, has one runway 14/32 which is 1625 metres long and 30 metres wide. The runway surface is tarmac and was in very good condition at the time of the accident. The airport is owned and operated by the Tanzania Government. There is a control tower and meteorological services. The airport is located 8 km north east of the town

The circumstances leading to this accident are being investigated.



