



Ref: 7845

**SOUTH AFRICAN CIVIL AVIATION AUTHORITY****ACCIDENT REPORT – EXECUTIVE SUMMARY**

<b>Aircraft Registration</b>	<b>ZS-MRG</b>	<b>Date of Accident</b>	20 August 2004	<b>Time of Accident</b>	0900Z
<b>Type of Aircraft</b>	CESSNA 402C		<b>Type of Operation</b>		Domestic Charter Flight
<b>Pilot-in-command License Type</b>	Commercial	<b>Age</b>	43	<b>License Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>	Total Flying Hours	2000	Hours on Type	160	
<b>Last point of departure</b>	Kwazulu Game Farm (Pongola)				
<b>Next point of intended landing</b>	Lanseria (FALA)				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>					
Mangosuthu Parafountain Plantation, Paulpietersburg Area. (S27° 24' 431" E030° 54' 791") Elevation 3554 feet.					
<b>Meteorological Information</b>	Surfacewind: 360°/05knots, Temperature: 18°C, Visibility: CAVOK				
<b>Number of people on board</b>	1+4	<b>No. of people injured</b>	1+4	<b>No. of people killed</b>	0

**Synopsis**

The pilot took off from Wonderboom Aerodrome on 20 August 2004 at 0400Z to collect three passengers at Thabo Thola to Mkuze. He then departed from Mkuze to Kwazulu Game Farm to collect another four passengers at 0800Z for a flight to Lanseria Aerodrome (FALA).

The aircraft was refueled from a drum before it took-off from Kwazulu Game Park private Aerodrome. The take-off was uneventful but approximately 25 minutes later, the pilot stated that the left hand engine started running rough. Soon thereafter the oil temperature started rising and the manifold pressure decreased. He observed oil emanating from the rear of the left hand engine vents. He also observed smoke emanating from the engine 10 minutes later and the fire warning sounded.

Soon thereafter, the left hand engine failed and the aircraft initially maintained altitude on the right hand engine. The pilot stated that he called Johannesburg East and informed them that he had experienced an engine failure but was still maintaining altitude on one engine. The pilot briefed the passengers and requested them to stay calm and fasten their seats belt. The right hand engine also started losing power and the aircraft could not maintain altitude any longer. The pilot declared MAYDAY and requested ATC for the nearest airfield, which was 5nm straight ahead (Paulpietersburg). There was also another aircraft overhead, which relayed the message. The pilot could not maintain altitude any longer and the aircraft crashed into a plantation.

A post impact fire erupted just after the pilot was rescued from the aircraft by one of the passengers and the ensuing fire destroyed the aircraft.

The aircraft had flown a total of 34 hours since the last MPI was certified on the 18 June 2004 with a total of 7694.4 airframe hours. The investigation revealed that incorrect fuel was uplifted from the drum at Kwazulu Game Park.

**Probable Cause**

Engines failed due to detonation caused by the incorrect grade of fuel.