



Ref: 7501

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

Aircraft Registration	ZS-EBO	Date of Accident	8 May 2002	Time of Accident	0620Z
Type of Aircraft	PA-28-235	Type of Operation	Private		
Pilot-in-command License Type	Private	Age	43	License Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours	281.1	Hours on Type	125	
Last point of departure	Wouterspan approximately 35nm WSW of Douglas				
Next point of intended landing	Runway 19, New Tempe aerodrome				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)					
Approximately 1nm short of Runway 19, New Tempe aerodrome					
Meteorological Information	CAVOK Wind was calm				
Number of people on board	1+1	No. of people injured	Nil	No. of people killed	Nil
Synopsis	<p>The private pilot was accompanied by his wife on a flight from Wouterspan (a farm 35nm WSW of Douglas) to New Tempe aerodrome when the accident occurred. Prior to departure, the pilot carried out a pre-flight inspection. It was, however, too dark to visually inspect each tank's fuel level. According to the pilot's calculations, a total of approximately 3 hours of fuel should have been onboard the aircraft, which was apparently verified by the indication of the fuel quantity gauges.</p> <p>The aircraft took off at approximately 0445Z with an expected flight time to New Tempe of 1.25 hours. While on-route and almost abeam Douglas, the pilot had to divert to Douglas for a "refresher stop" before continuing to New Tempe again. While approximately 50nm inbound, the pilot changed tanks from Left Main to Right Main, whereupon the engine failed. He re-selected the Left Main tank and the engine re-started. At that stage the Left Main tank fuel quantity gauge indicated approximately 50% full and the pilot was under the impression that approximately 15 to 20 minutes of fuel was still available in the tip tanks.</p> <p>While approximately 22nm inbound, near the Krugersdrif dam the Left main tank's fuel quantity gauge indication dropped off rapidly. The pilot then selected the tip tanks, whereupon the engine failed again and the Left-main tank had to be re-selected to restart the engine.</p> <p>The pilot joined long final approach for Runway 19 and maintained an altitude of 6500 ft. A short while later on final approach, the engine, however failed, and a forced landing was executed on an agricultural field approximately 1nm North of New Tempe. Due to the soft ground, the nose wheel dug into the ground causing the nose gear to collapse and resulting in propeller damage. The Left main wheel was also damaged in the accident. No injuries were sustained.</p>				
Probable Cause					
Engine failure occurred as a result of fuel exhaustion. Fuel exhaustion occurred as a result of an inadequate pre-flight inspection and poor flight planning.					

