



Ref: 0248

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

	Aircraft Registration	ZS-DZZ	Date of Incident	04-10-2002		Time of Incident	0900Z		
	Type of Aircraft	PA24-400			Type of Operation		Private		
	Pilot-in-command License Type		Private		Age	55 years		License Valid	Yes
	Pilot-in-command Flying Experience		Total Flying Hours		1218.40 Hrs		Hours on Type	25.00 Hrs	
	Last point of departure		Lanseria Airport						
	Next point of intended landing		Rustenburg Aerodrome						
	Location of the incident site with reference to easily defined geographical points (GPS readings if possible)								
	Rustenburg Aerodrome								
	Meteorological Information		The weather was fine and the wind calm.						
	Number of people on board		1	No. of people injured		Nil		No. of people killed	Nil

Synopsis

On 04-10-2002 at approximately 0900Z, the pilot was accompanied by an Avionics technician for a flight in the General Flying Area near Britz to perform an operational test of the new Garmin 430 system fitted to the aircraft.

Approximately 15 minutes after take-off, the pilot experienced a partial radio failure and the avionics system became inoperative. He elected to divert to Rustenburg but during extension of the undercarriage he experienced a total electrical failure.

The pilot then utilized the undercarriage emergency extension system and the visual indicators showed that the undercarriage appeared to be down and locked.

Upon landing, the aircraft rolled for approximately 150m when the right-hand main undercarriage collapsed followed by the nose and left-hand main undercarriage.

It was established that the electrical system 90 amp circuit protector to the alternator and voltage regulator contact point was completely worn and loose causing arcing and a short circuit inside the circuit protector.

The last MPI was carried out on 09-05-2002 at a total of 2784.40 hours. The incident occurred 16.20 hours after the last MPI.

The pilot was correctly licenced and the type endorsed in his licence.

Probable Cause

The electrical system 90 amp circuit protector to the alternator and voltage regulator contact point was completely worn and loose causing arcing and a short circuit inside the circuit protector. The most probable cause for the undercarriage to collapse is that the pilot failed to utilize the emergency extension system as prescribed.

