



Ref: 7732

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

<b>Aircraft Registration</b>	ZU-DAW	<b>Date of Accident</b>	26 November 2003		<b>Time of Accident</b>	1410Z
<b>Type of Aircraft</b>	JABIRU J400			<b>Type of Operation</b>	Private	
<b>Pilot-in-command Licence Type</b>	Private		<b>Age</b>	46	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>	<b>Total Flying Hours</b>	1 075.0		<b>Hours on Type</b>	18.3	
<b>Last point of departure</b>	Stellenbosch (FASH)					
<b>Next point of intended landing</b>	Stellenbosch (FASH)					
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>						
Farm Koelenhof ±15km North of Stellenbosch						
<b>Meteorological Information</b>	Fine: Wind - 200/15, Temperature 25°C, Cloud cover 5/8					
<b>Number of people on board</b>	1 + 1	<b>No. of people injured</b>	None		<b>No. of people killed</b>	None
<b>Synopsis</b>	<p>During the afternoon of 26 November 2003 the pilot flew three circuits from the Stellenbosch aerodrome. The purpose of these flights was to evaluate the engine monitoring system that was installed in the aircraft, as the unit was giving erratic cylinder head temperature readings. It was decided on the third flight to extend the circuit in order to obtain maximum engine performance and they climbed to a height of 2 200 feet amsl (above mean sea level), while flying in a northerly direction.</p> <p>With the right hand tank very near empty, the pilot switched the right tank selector to the off position as they cleared the Stellenbosch circuit. After being airborne for a while, flying straight and level he executed a gentle right descending turn, heading back to the Stellenbosch aerodrome. Once they had levelled off he again selected both fuel tanks "ON". The engine started but a few seconds later stopped. He immediately switched the electric fuel pump on, applied carburettor heat and checked the magnetos. He managed to restart the engine but a few seconds later it failed again. In the mean time he identified a road and a field below in the middle of the vineyards. Another re-start was attempted at a height of approximately 1 000 feet AGL (above ground level) but without success.</p> <p>It was decided to concentrate on the forced landing. The pilot managed to broadcast a mayday call on the Stellenbosch aerodrome frequency of 119.70 MHz. He initiated his approach for the road and as he descended he noticed a substantial amount of traffic on the road, and elected the only other possibility, which was a vineyard. Prior to touch down the left main landing gear strut struck an Eskom power line, which severed the line resulting in a power failure in the area. The aircraft came to a halt within a distance of approximately 20m between the vineyards in a left wing low attitude. None of the occupants onboard sustained any injuries.</p>					
<b>Probable Cause</b>						
Due to the fact that the right fuel tank was empty or very near empty, this condition might have resulted in air vapour (bubbles) being sucked into the fuel system and subsequently into the carburettor float bowl. With the fuel supply to the float bowl being interrupted this could have caused "frothing" of fuel in the bowl, which might have resulted in an engine surge or a subsequent engine failure in-flight.						