




VIRGINIA FLIGHT SCHOOL SAFETY ARTICLE – NO 04/08

DECISION MAKING – ACCIDENT ANALYSIS

Read the following SA CAA accident executive summary and then examine the decisions that were made. Could alternate, better decisions have been made for a more desirable outcome?

		Ref: 0347			
		SOUTH AFRICAN CIVIL AVIATION AUTHORITY INCIDENT REPORT – EXECUTIVE SUMMARY			
Aircraft Registration	ZS-NTO	Date of Incident	16 August 2004	Time of Incident	1330Z
Type of Aircraft	CESSNA 172	Type of Operation		Training	
Pilot-in-command Licence Type	Student Pilot	Age	20	Licence Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours	111.1	Hours on Type	111.1	
Last point of departure	FAWB, Wonderboom Aerodrome				
Next point of intended landing	FAWB, Wonderboom Aerodrome				
Location of the incident site with reference to easily defined geographical points (GPS readings if possible)					
Private gravel road in the Thabazimbi district.					
Meteorological Information	CAVOK, Temperature approx. 26°C, Wind 350/12				
Number of people on board	1+0	No. of people injured	0	No. of people killed	0
Synopsis	<p>The student pilot was engaged in a solo cross country navigational flight from Wonderboom Aerodrome to Thabazimbi via Nylstroom and then back to Wonderboom.</p> <p>While in close proximity to Thabazimbi, a gradual reduction in engine rpm indication was observed. This condition existed for a while until the rpm stabilised at idle. The pilot stated that the aircraft descended and the engine sounded unusual until there was a complete loss of engine rpm indication.</p> <p>The student pilot then opted for a suitable landing area which was a gravel road and a safe precautionary landing was executed. The aircraft was stopped safely and shut down. The aircraft sustained no damage.</p> <p>No injuries were sustained.</p> <p>The aircraft was inspected and started on site by an Aircraft Maintenance Engineer and it was established that the tachometer cable had failed. The aircraft was flown back to home base (FAWB) with no further incident.</p> <p>The cable was replaced with a serviceable unit, and the rpm indication has since been restored to normal operation.</p> <p>The last Mandatory Periodic Inspection was certified on 12 August 2004 at 6202.3 hours and the aircraft had accumulated a further 5.3 hours at the time of this incident.</p>				
Probable Cause	<p>The tachometer cable failed giving no engine rpm indication which resulted in the pilot executing a precautionary landing on a private gravel road with no further incident.</p>				

SOME POINTS TO PONDER

- Was the emergency situation verified i.e. was it an actual imminent engine failure?
- Did the engine actually sound unusual or was the pilot re-inforcing his diagnosis?
- Was the decision to execute a precautionary landing consistent with imminent engine failure/
- What could the potential consequences of his decision have been?

“GOOD DECISIONS RELY ON ACCURATE SITUATIONAL ASSESSMENTS”