



## EXECUTIVE SUMMARY - AIRCRAFT ACCIDENT REPORT

				Reference:	CA18/2/3/7783	
<b>Aircraft Registration</b>	ZS-HNA	<b>Date of Accident</b>	4 April 2004		<b>Time of Accident</b>	1035Z
<b>Type of Aircraft</b>	Enstrom F28F		<b>Type of Operation</b>	Training		
<b>Pilot-in-command Licence Type</b>		Commercial	<b>Age</b>	38	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>		Total Flying Hours	1 751.9		Hours on Type	244.8
<b>Last point of departure</b>		Wonderboom Aerodrome (FAWB)				
<b>Next point of intended landing</b>		Wonderboom Aerodrome (FAWB)				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>						
3 nm north of Bon Accord Dam						
<b>Meteorological Information</b>		Surface wind 350° at 8 kts, temperature 26°C, visibility good				
<b>Number of people on board</b>	2 + 0	<b>No. of people injured</b>	0	<b>No. of people killed</b>	0	
<b>Synopsis</b>		<p>The flight instructor and a student pilot were engaged in a training flight in the helicopter general flying area to the north of Wonderboom Aerodrome. During an approach for an out-of-ground effect hover exercise, the nose of the helicopter started to yaw to the right. Due to a misunderstanding between the student pilot and the instructor, the situation was aggravated by the student pilot in the application of an excessive increase in power. The flight instructor took over control of the helicopter and applied full left yaw pedal in order to arrest the yaw. At the same time, due to the substantial power application, the manifold pressure (MP) reached overboost, which required the instructor to roll off the throttle to maintain MP within the green arc. Faced with a full left rudder application as well as a reduced power/throttle setting, the helicopter experienced a sudden decay in main rotor revolutions per minute (RPM). In an attempt to recover from the low rotor RPM condition, the instructor lowered the collective pitch lever and increased the throttle application. At this stage, the helicopter descended to below 10 ft above ground level (AGL) and it was not possible to arrest the low rotor RPM condition. The instructor attempted to cushion the landing by applying maximum collective pitch prior to ground impact.</p> <p>The helicopter impacted the ground at a descent rate of between 300 – 400 ft per minute and bounced back into the air, causing the main rotor blades to impact the tail boom and tail rotor drive shaft. A hard landing followed with initial impact on the left skid gear, resulting in substantial damage to the helicopter. Nobody was injured in the accident.</p> <p>The flight instructor was the holder of a valid commercial pilot's licence and had the aircraft type endorsed in his logbook. The last mandatory periodic inspection (MPI) that was carried out on the helicopter prior to the accident was certified on 10 March 2004, at 1 760.0 airframe hours. Another 20 hours were flown with the helicopter following the MPI inspection.</p>				
<b>Probable Cause</b>						
Due to a combination of factors, a low rotor RPM condition developed, which the instructor was unable to correct, and a hard landing followed.						
IARC Date	28 February 2008		Release Date	Reviewed by EM office: AIID October 200		