

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

Aircraft Registration	ZS-RRM	Date of Incident	20 October 2004		Time of Incident	1100Z
Type of Aircraft	Robinson R22 Beta		Type of Operation	Training Flight		
Pilot-in-command Licence Type	Student		Age	21	Licence Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours	21.9		Hours on Type	21.9	
Last point of departure	Johannesburg, Rand Aerodrome (FAGM)					
Next point of intended landing	Johannesburg, Rand Aerodrome (FAGM)					
Location of the incident site with reference to easily defined geographical points (GPS readings if possible)						
Johannesburg, Rand Aerodrome (FAGM)						
Meteorological Information	The wind was 360°/7 knots, the temperature was 22°C and there was no cloud.					
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 hovering exercise when a gust of wind caused the helicopter to yaw to the right. The student applied left pedal but was unable to arrest the yaw and the helicopter entered into a right hand spin.</p> <p>At this point the pilot lowered the collective and a hard landing followed causing minor damage to the rear cross tube of the undercarriage as well as to the left hand side of the engine frame.</p> <p>The pilot was correctly licenced and type rated on the aircraft to conduct the flight and held a valid medical certificate.</p> <p><i>The following is an extract from the Emergency Procedures in the Pilots Operating Handbook:</i></p> <p><i>Loss of Tail Rotor Thrust During Hover:</i></p> <ol style="list-style-type: none"> 1. <i>Failure is usually indicated by nose right yaw which cannot be stopped by applying left pedal.</i> 2. <i>Immediately roll throttle off into overtravel spring and allow aircraft to settle.</i> 3. <i>Raise collective just before touchdown to cushion landing.</i> <p>The last MPI was certified on 28 September 2004 at a total of 416.5 airframe hours and the aircraft has accumulated 68.8 airframe hours since the last MPI was certified.</p> <p>The operator was in possession of a valid Operating Certificate.</p>					
Probable Cause						
It would appear that the pilot experienced an unanticipated yaw to the right caused by a gust of wind, resulting in a loss of tail rotor thrust, which he was unable to arrest and a hard landing followed.						
IARC Date		Release Date				