



Ref: 7586

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

Aircraft Registration	ZS-RCI	Date of Accident	13-11-2002	Time of Accident	1335Z
Type of Aircraft	ROBINSON R22 BETA		Type of Operation	Private	
Pilot-in-command License Type	CA - Airplane PR – Helicopter	Age	22 years	License Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours	267.7	Hours on Type	40.10	
Last point of departure	Rand Airport (FAGM)				
Next point of intended landing	Panorama Flight Park				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)					
Panorama Flight Park					
Meteorological Information	Weather was fine: Wind – 350°/15-18kts, Temperature + 27°C				
Number of people on board	1+1	No. of people injured	Nil	No. of people killed	Nil
Synopsis	<p>The pilot was accompanied by a passenger and departed Rand Airport on a private flight with the intention to conduct some recurrent training at Panorama Flight Park. They joined the circuit at Panorama on a left downwind for Runway 01. They approached for the square, where they spent some time involving mainly hover exercises.</p> <p>They then air taxied over onto the runway and decided to fly a circuit, climbed to a height of approximately 300ft AGL, turning onto a left downwind for runway 01 followed by final approach. They approached for the runway and the aircraft was established in the hover just after the threshold, followed by a quick stop maneuver along the runway. The pilot stated that he was monitoring the power needles (engine & main rotor rpm, manifold pressure) during the hover, as he needed to be aware of the power demand on the day. They managed to obtain a manifold pressure of between 20"-21" with the engine and main rotor rpm needles in the green band.</p> <p>It was decided to fly another circuit, returning to the square. They extended the downwind leg and when turning base at a height of approximately 600 feet AGL, the low rotor RPM light illuminated and the audio warning sounded. The first action by the pilot was to open the throttle and monitor the engine and main rotor RPM gauge, which indicated a RPM of between 65% to 70%, well below the green band. He then lowered the collective pitch lever with the speed indicating approximately 60kt.</p> <p>The pilot stated that he waited for the RPM to recover but none of the needles moved and a skid on landing was attempted. At a height of approximately 30 feet above the ground, he attempted to flare the aircraft, which yawed to the left before touching down on uneven terrain and rolled over. Nobody was injured in the accident.</p>				
Probable Cause					
<p>The pilot induced a manoeuvre, which resulted in a low rotor RPM condition. By applying the wrong Recovery technique he allowed the aircraft to descent at a substantial rate, resulting in a heavy landing and subsequent rollover.</p>					