



EXECUTIVE SUMMARY - AIRCRAFT ACCIDENT REPORT

				Reference:	CA18/2/3/7829	
Aircraft Registration	ZS-RTV	Date of Accident	6 July 2004		Time of Accident	1330Z
Type of Aircraft	Robinson R22 Beta II		Type of Operation	Game capture		
Pilot-in-command Licence Type		Commercial	Age	41	Licence Valid	Yes
Pilot-in-command Flying Experience		Total Flying Hours	2 506.0		Hours on Type	1 010.0
Last point of departure		Kalahari Oryx Game Farm, Northern Cape				
Next point of intended landing		Kalahari Oryx Game Farm, Northern Cape				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)						
Kalahari Oryx Game Farm (GPS position: South 28° 32' 325" East 022° 10' 168")						
Meteorological Information		Surface wind 090° at 5 – 10 kts, temperature 19°C, visibility good				
Number of people on board	1 + 1	No. of people injured	1	No. of people killed	0	
Synopsis						
<p>The pilot and a passenger were engaged in a game capture operation.</p> <p>They managed to successfully herd about 15 oryx antelope into the capture boma. As the animals were being herded deeper into the boma by ground personnel, the pilot maintained a hover flight at a height of approximately 100 ft above the boma from where he and the passenger assessed the situation. The passenger then requested the pilot to land next to the boma in order for him to disembark and assist the ground personnel in the capture operation. According to the pilot, he was in a downwind position at the time, and he executed a descending turn to the right in order to position himself into wind for the landing. During the descent, the pilot realised that his rate of descent (ROD) was too high and he levelled off in a northerly direction (crosswind). However, the ROD was still too high, and in order to arrest the descent rate, he applied more collective pitch, resulting in a decay in main rotor revolutions per minute (RPM). The pilot was unable to recover from the low main rotor RPM condition and the helicopter impacted uneven rocky terrain and skidded to a halt a few metres from the first point of impact, coming to rest on its left-hand side.</p> <p>The passenger sustained some bruising from his safety harness and a few superficial cuts to his legs while exiting from the wreckage. The pilot was not injured.</p> <p>The pilot was the holder of a valid commercial helicopter pilot licence. He was also the holder of a valid cull/livestock rating. The company responsible for the capture operation was in possession of a valid air operating certificate (AOC).</p> <p>The helicopter was in possession of a valid certificate of airworthiness at the time, and had flown 86.1 hours since new when the accident occurred.</p>						
Probable Cause						
<p>The pilot executed a downwind approach for landing and in an attempt to arrest a high rate of descent, overpitched the main rotors. This resulted in a decay in main rotor RPM with a possible vortex ring state, resulting in a hard landing.</p> <p>Contributory factor: The pilot reflected poor airmanship and situational awareness by not assessing the prevailing wind properly prior to initiating his descent.</p>						
IARC Date	28 February 2008		Release Date	Reviewed by EM office: AIID March 2009		



Figure 1: A view of the main wreckage and a section of the tail boom and rotor assembly



Figure 2: A view of the initial impact point with the main wreckage visible further on