Aviation Safety Investigation Report 199703441

Robinson Helicopter Co R22

20 October 1997

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Aviation Safety Investigation Report

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Occurrence Number: 199703441 **Occurrence Type:** Accident
Location: 165km WNW Newman, Aerodrome
State: WA **Inv Category:** 4
Date: Monday 20 October 1997
Time: 1600 hours **Time Zone** WST
Highest Injury Level: None

Aircraft Manufacturer: Robinson Helicopter Co
Aircraft Model: R22 BETA
Aircraft Registration: VH-JKN **Serial Number:** 1023
Type of Operation: Commercial Other
Damage to Aircraft: Destroyed
Departure Point: Talawana WA
Departure Time:
Destination: Talawana WA

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	495.0	600

Approved for Release: Friday, November 21, 1997

The helicopter had just finished being used to survey cattle and was returning for a landing. The pilot reported that the engine governor was turned on and that during a steep turn downwind, he allowed the helicopter's airspeed to decrease to approximately 20 kts. As he lowered the helicopter's nose to accelerate downwind, the Low Rotor RPM warning horn sounded indicating that the main rotor RPM had decreased below 96%. The pilot reported that he immediately lowered the collective, fully opened the throttle and further lowered the helicopter's nose to recover airspeed. As the helicopter approached the ground, he selected a decelerative attitude, a manoeuvre that would normally recover some main rotor RPM. However, in this case, the main rotor RPM did not recover. When the helicopter had descended to approximately 3 ft AGL with an airpseed of approximately 55 kts, the pilot placed it in a sideways quick-stop manoeuvre. This was done to decrease the helicopter's air and ground speed before it contacted the ground. The pilot reported that he then levelled the helicopter before running it onto a sand ridge. Despite these actions, the Low Rotor RPM warning horn continued to sound throughout the descent and landing. After sliding along the ground for approximately 20 ft, the helicopter somersaulted.

After the dust had settled following the crash, the pilot reported that he checked the welfare of his passenger and then checked the engine. The pilot reported that the engine exhaust was cool enough to hold and that the rocker cover was only warm to touch.