Aviation Safety Investigation Report 198903785

Robinson R22 Beta

24 June 1989

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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.

Occurrence Number: 198903785 **Occurrence Type:** Accident
Location: 16km NE of Kilcoy QLD
Date: 24 June 1989 **Time:** 900
Highest Injury Level: Nil
Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	0
Total	**0**	**0**	**0**	**1**

Aircraft Details: Robinson R22 Beta
Registration: VH-HBE
Serial Number: 509
Operation Type: Private
Damage Level: Substantial
Departure Point: 14km NE of Kilcoy QLD
Departure Time: 0850
Destination: 16km NE of Kilcoy QLD

Approved for Release: 21st February 1990

Circumstances:

The pilot intended to land on a small knoll in the centre of a large cleared area in heavily timbered country. During the flare to land over a large depression, the pilot noticed a lack of power accompanied by the Low Rotor RPM Warning Horn. He lowered the collective control and wound the throttle to maximum in an attempt to regain rotor RPM. In doing so, he oversped the engine and rotor, and subsequently overshot the landing site. He was convinced that he had a genuine power problem and elected to land in a gully beyond the knoll. The tail rotor struck ground in the steeply sloping gully, resulting in the tailboom being cut off by the main rotor. The cabin came to rest on a heap of storm debris. During later investigation, the engine was ground run successfully. A small fuel leak existed at the carburettor but this did not affect the fuel supply to the engine. The pilot had not received any training in ridge line operations. He had made his approach using visual cues only, which can result in a steep final approach accompanied by a high rate of closure. In addition, the pilot was unaware of the local wind velocity, and the aircraft was probably subject to local airflow effects. While attempting to compensate for these, it is probable that the pilot over-pitched the main rotor blades leading to a temporary reduction in main rotor RPM. He subsequently misread the symptoms as an engine malfunction.

Significant Factors:

The following factors were considered relevant to the development of the accident

1. The pilot was inexperienced in ridge line operations.

2. The pilot did not maintain adequate rotor RPM during the latter stages of the approach.

3. The pilot considered that the engine had failed.

4. The aircraft was force landed on unsuitable terrain.