

Aviation Safety Investigation Report
198500666

Robinson R22A

14 October 1985

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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: 198500666

Occurrence Type: Accident

Location: 5 km South of Warooka SA

Date: 14 October 1985

Time: 0955(Aprx)

Highest Injury Level: Minor

Injuries:

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

Aircraft Details: Robinson R22A

Registration: VH-HBQ

Serial Number:

Operation Type: Private-Positioning

Damage Level: Substantial

Departure Point: Warooka SA

Departure Time: 0955(Aprx)

Destination: 5 km South of Warooka SA

Approved for Release: April 4th 1986

Circumstances:

The pilot positioned the helicopter on the downwind leg of the circuit at an altitude of about 300 feet agl. The wind was gusting between 30 and 35 knots. Towards the end of the downwind leg the pilot noticed that the helicopter was yawing to the right and that a high rate of descent had developed. The pilot applied full power and lowered the collective slightly. The helicopter continued to descend and the pilot applied full up collective, but the helicopter struck the ground heavily and bounced. On the second touchdown, the tail rotor struck the ground and broke off. At the point of turning downwind, the helicopter was being flown at an indicated airspeed of 30 knots. On downwind it is probable that the pilot unwittingly allowed the indicated airspeed to decrease well below translational lift because of the rapid increase in groundspeed, resulting from the 30 knot tailwind. Had the helicopter touched down at zero indicated airspeed, when travelling downwind, it would have contacted the ground at 30 knots groundspeed and travelled a considerable distance along the ground. However, the helicopter travelled only about 12 metres after the first point of touchdown. This indicates that prior to touchdown, the helicopter was probably flying backwards in relation to the airmass in which it was operating, and was effected by the downwash from the main rotor blades. In such a situation there would have been insufficient altitude or power available to arrest the rate of descent.