

**Aviation Safety Investigation Report
198800739**

Bell 206B

4 December 1988

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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: 198800739

Occurrence Type: Accident

Location: Innamincka Homestead SA

Date: 4 December 1988

Time: 2235

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: Bell 206B

Registration: VH-CIH

Serial Number: 3031

Operation Type: Aerial Work (Medical evacuation)

Damage Level: Substantial

Departure Point: Moomba SA

Departure Time: 2158

Destination: Innamincka Homestead SA

Approved for Release: 6 May 1989

Circumstances:

The pilot was making a night visual approach to the end of a strip which was to serve as a helipad. The pad was illuminated by the headlights of a vehicle while lights from a house and shed provided additional peripheral light sources. The pilot reported that there was considerable turbulence adjacent to high ground near the strip. The approach was being flown at an indicated airspeed of 50 knots. While passing over the high ground at a height of about 400 feet, the airspeed suddenly reduced to virtually zero and a large sink rate developed. The pilot attempted to go-around but the helicopter continued to descend until it struck the ground in a near vertical descent. The terrain and wind velocity were such that windshear over the high ground was probable. However, it was considered unlikely that this alone would have resulted in such a severe loss of airspeed. It was possible that the pilot, who had limited night flying experience, had not noticed a decay in airspeed prior to the sudden descent. If this was the case, the conditions were suitable for the aircraft to enter a vortex ring state. The fact that when the pilot increased power and collective the descent continued would also support this conclusion.

Significant Factors:

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

1. The pilot had limited night flying experience.
2. It was a dark night with no visible horizon.
3. The helicopter was affected by considerable turbulence and windshear while on final approach.

4. A loss of airspeed and a high rate of descent occurred. It was possible that the aircraft entered a vortex ring state.
5. The pilot was unable to recover control of the aircraft before impact with the ground.