

**Aviation Safety Investigation Report
198902586**

Kawasaki Bell 47-G3B-KH4

16 November 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: 198902586
Location: Borenore NSW
Date: 16 November 1989
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident
Time: 1503

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	3
Total	0	0	0	4

Aircraft Details: Kawasaki Bell 47-G3B-KH4
Registration: VH-JWZ
Serial Number: 2108
Operation Type: Charter
Damage Level: Substantial
Departure Point: Borenore NSW
Departure Time: N/A
Destination: Borenore NSW

Approved for Release: 12th December 1989

Circumstances:

The aircraft was engaged in joy flights at an agricultural field day. Operations were being conducted from a paddock with a downslope of 7 toward the north. Part of the paddock had been slashed for a helipad, leaving a thick layer of loose hay on the surface. The pilot had been using the slipperyness of the loose hay to assist in obtaining translational lift, by turning and sliding the skids down the slope. He reported that the wind had been variable from the north-west. On the last take-off, the helicopter became airborne but failed to climb above about 10 feet. The rotor RPM began to decrease and the helicopter started to descend. The pilot started "milking" the collective and noticed that the wind had swung to a westerly and increased to about 15 knots. He considered turning into wind but was concerned that he would either have to land in the long grass adjacent to the pad, or that he would have problems outclimbing the heavily populated exhibition area to the west. He was also concerned that he would not be able to outclimb a set of powerlines to the north over which he had normally flown on climb out. He elected to land down the slope in a north-north-westerly direction. He flared for landing and the helicopter touched down gently, slightly tail first. As it rocked forward onto the skids the tail rose up into the main rotor disc. Part of the tail frame and tail rotor drive shaft were severed. The helicopter came to rest approximately 50 metres from its parking position at the top of the pad.

Significant Factors:

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

1. The wind component change immediately after lift-off.
2. The pilot overpitched, resulting in low rotor RPM.

3. The helicopter landed with the tail up-slope.