

**Aviation Safety Investigation Report
199301327**

**Bell Helicopter Co
Ranger**

12 May 1993

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Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

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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.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199301327 **Occurrence Type:** Accident
Location: Head of Bight
State: SA **Inv Category:** 4
Date: Wednesday 12 May 1993
Time: 1230 hours **Time Zone** CST
Highest Injury Level: None

Aircraft Manufacturer: Bell Helicopter Co
Aircraft Model: 47J-2A
Aircraft Registration: VH-KHZ **Serial Number:** 3325
Type of Operation: Commercial Aerial Mapping/Photo/Survey
Damage to Aircraft: Substantial
Departure Point: Head of Bight SA
Departure Time: 1230 CST
Destination: Head of Bight SA

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	190.0	1900

Approved for Release: Monday, March 28, 1994

The helicopter was being repositioned near a cliff edge. As it was lifted to a one metre hover a gust of wind tilted the tail down and the pilot felt a 'thump'. He initially raised the collective control but the helicopter began to rotate rapidly to the right. The throttle was closed and the collective control lowered to prevent the helicopter from falling over the cliff edge. The helicopter landed heavily, after rotating through 270 degrees, bending and breaking the skid crosstubes.

Inspection revealed that the tail rotor guard had failed when it contacted the ground. It was then struck by the tail rotor causing the tail rotor drive shaft to fail at the main transmission.