

**Aviation Safety Investigation Report
198500137**

BELL 47-G5

29 MAY 1985

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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 CEO 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.

Occurrence Number: 198500137

Occurrence Type: Accident

Location: Ivanhoe Station WA

Date: 29 MAY 1985

Time: 900

Highest Injury Level: Fatal

Injuries:

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

Aircraft Details: BELL 47-G5

Registration: VH-SJY

Serial Number:

Operation Type: Aerial Work

Damage Level: Substantial

Departure Point: Ivanhoe Station WA

Departure Time: 0900

Destination: Ivanhoe Station WA

Approved for Release: 7th January, 1986

Circumstances:

The helicopter was engaged in cattle mustering on Ivanhoe Station. The pilot in command was training the other pilot in aerial mustering techniques. While the helicopter was being flown at about 50 feet agl, one main rotor blade grip failed. The associated main rotor blade separated from the helicopter and the resulting imbalance caused the other main rotor blade and transmission to be torn from the helicopter. The aircraft then fell to the ground, landing on its right side. The main rotor blade grip failed due to a combination of fatigue and overload forces. Examination of the aircraft records revealed that because of a error in the recording of component hours, the 5000 hour service life of the grip had been exceeded by 687 hours. During the investigation inspections of the blade grips on several other helicopters were carried out. Fatigue cracking was revealed in a significant number of the blade grips inspected. As a result, the manufacturer of the aircraft has recommended a reduction in the service life of the component.