## **Aviation Safety Investigation Report 198903791**

**Bell 47-G5** 

23 July 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: 198903791 Occurrence Type: Accident

**Location:** Delta Downs Station QLD

**Date:** 23 July 1989 **Time:** 1050

**Highest Injury Level:** Serious

**Injuries:** 

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

**Aircraft Details:** Bell 47-G5 **Registration:** VH-SXO **Serial Number:** 7811

**Operation Type:** Aerial Work **Damage Level:** Substantial

**Departure Point:** Delta Downs Station QLD

**Departure Time:** 0945

**Destination:** Delta Downs Station QLD

**Approved for Release:** 28th September 1990

## **Circumstances:**

Whilst conducting mustering operations at low speed and altitude over trees, the engine began to run rough. The helicopter was unable to sustain continued flight and the pilot elected to land. During the landing the rotor blades struck trees and the helicopter landed heavily coming to rest on its side. The pilot was able to crawl to safety after switching the magnetos off, but he was unable to reach the fuel mixture control. The engine subsequently oversped to destruction. The investigations found that the left magneto had suffered an internal failure. The bush supporting the distributor rotor gear had become loose in its housing, allowing the rotor to become mis-timed. During the impact sequence, the magneto earthing wires were fractured which allowed the engine to continue to run despite the pilot switching off the magnetos.

## **Significant Factors:**

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

- 1. Failure of distributor rotor block bush.
- 2. Mis-timing of one magneto.
- 3. Forced landing in unsuitable terrain.