

**Aviation Safety Investigation Report  
199403829**

**Robinson Helicopter Co  
R22**

**15 December 1994**

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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](http://www.atsb.gov.au).**

**Occurrence Number:** 199403829 **Occurrence Type:** Accident  
**Location:** 4km S South Aligator River Ranger's Station  
**State:** NT **Inv Category:** 4  
**Date:** Thursday 15 December 1994  
**Time:** 1300 hours **Time Zone:** CST  
**Highest Injury Level:** Serious  
**Injuries:**

	Fatal	Serious	Minor	None	Total
Crew	0	1	0	0	1
Ground	0	0	0	0	0
Passenger	0	1	0	0	1
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Aircraft Manufacturer:** Robinson Helicopter Co  
**Aircraft Model:** R22 BETA  
**Aircraft Registration:** VH-JNL **Serial Number:** 1323  
**Type of Operation:** Commercial Fire Control  
**Damage to Aircraft:** Substantial  
**Departure Point:** South Aligator River NT  
**Departure Time:** 1230 CST  
**Destination:** South Aligator River NT

**Crew Details:**

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	ATPL 1st Class	4700.0	5000

**Approved for Release:** Friday, March 1, 1996

The helicopter was being used for a controlled fire bombing and burning off operation. The pilot had been flying very slowly just above the tree tops, then after turning onto a southerly heading he believed the engine lost power, and was unable to prevent it from striking the tops of the trees. It then descended steeply into the ground, the pilot receiving severe back injuries, and the passenger a broken arm.

An investigation of the helicopter and engine failed to find any fault, or malfunction, that may have caused the engine to lose power.

Weather conditions were very hot with a light northerly wind blowing.



The helicopters weight was calculated to be in excess of its maximum all up weight, with heavy items of equipment stored in the areas below the seats, contrary to the flight manual and placarded instructions.

Being overweight for the operation, and turning downwind, ie to the south, the helicopter probably suffered a lose of translational lift with subsequent overpitching of the rotor system by the pilot, giving the impression that the engine had lost power. With no available height margin the pilot was unable to avoid flying into the trees.

