

Aviation Safety Investigation Report
198802357

Bell 47G-2

17 April 1988

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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: 198802357
Location: Horsley Park NSW
Date: 17 April 1988
Highest Injury Level: Fatal
Injuries:

Occurrence Type: Accident

Time: 1230

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Ground	0	0	0	-
Passenger	2	0	0	0
Total	3	0	0	0

Aircraft Details: Bell 47G-2
Registration: VH-OCT
Serial Number: 2176
Operation Type: Private (Pleasure)
Damage Level: Destroyed
Departure Point: Bankstown NSW
Departure Time: 1200
Destination: Bankstown NSW

Approved for Release: 21 October 1988

Circumstances:

The pilot had recently obtained a Commercial Helicopter Pilot Licence, and had been undergoing training for the issue of a cattle mustering endorsement. He had obtained permission from his employer to use the helicopter for a local flight. The approval was given on the understanding that operations were confined to normal procedures, and were not to include low flying. It was the pilot's intention to conduct two short flights, carrying two other persons on each occasion. The helicopter was given additional pre-flight inspections, following reports of vandalism to other helicopters in the area. No evidence of any vandalism was found and the pilot carried out a short solo flight to further verify the serviceability of the aircraft. The first two passengers then boarded the aircraft. About 30 minutes after DEPARTURE, the aircraft was observed operating, apparently normally, in a designated low flying area. It was then observed flying towards the south east at about 10 metres above the ground. The aircraft then entered a steep turn to the left, but after turning through some 200 degrees the main rotor blades struck the ground. The aircraft subsequently struck the ground heavily and cartwheeled around the rotor arc. A fierce fire broke out and engulfed the wreckage. A detailed technical investigation did not reveal any pre-impact defect or malfunction of the helicopter which might have contributed to the accident. There was also no evidence that the pilot had suffered any sudden illness or incapacity which might have affected his ability to control the aircraft. There was no known operational reason for the aircraft to be flown close to the ground, and it was possible that the pilot was demonstrating mustering techniques to his passengers. The wind at the time of the accident was from the south east at between 11 and 18 knots. The helicopter had been loaded near to the maximum allowable weight, and had not possessed sufficient performance to maintain level flight during the turn towards the downwind direction. The pilot had only limited experience in operations at high all-up-weight levels, and had evidently not realised the effect the increased weight had on the aircraft performance, particularly when turning downwind.

Significant Factors:

It was considered that the following factors were relevant to the development of the accident

1. The pilot did not comply with the terms of his authorisation for the flight.
2. The pilot attempted to perform a manoeuvre beyond his ability/experience level.
3. The helicopter had insufficient performance to sustain level flight under the existing wind and aircraft weight conditions.