

**Aviation Safety Investigation Report
198401440**

Buffier Gyroplane

1 October 1984

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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: 198401440
Location: Rylstone NSW
Date: 1 October 1984
Highest Injury Level: Fatal
Injuries:

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

Occurrence Type: Accident
Time: 0913 (Approx)

Aircraft Details: Buffier Gyroplane
Registration: Not Required
Serial Number:
Operation Type: Sport Aviation
Damage Level: Destroyed
Departure Point: Rylstone NSW
Departure Time: 0913 (Approx)
Destination: Rylstone NSW

Approved for Release: 19th June, 1985

Circumstances:

The pilot had purchased the aircraft some 12 months previously but had carried out only limited and infrequent training. This training had not progressed to the stage where turns were performed, and was limited to straight and level hops along the strip. On the morning of the accident the pilot had performed several hops, taking off and landing into a light easterly breeze. On about the fifth flight the aircraft climbed to a height of about 85 feet, levelled off momentarily and then descended with reduced power as if for a normal landing. When the aircraft was about 50 feet above the ground and close to the end of the landing area, power was applied, a climb was made to about 200 feet and turns were made to position the aircraft on a downwind leg. Witnesses noted that the aircraft was under control until it suddenly adopted a nose-high attitude, followed by a rapid pitch-down which continued into a tumbling motion. Two in-flight impact noises were heard above the sound of the engine and shortly afterwards the aircraft struck the ground in a steep nose-down attitude while cartwheeling to the left. Wreckage examination showed that there had been two strikes on the tail fin and rudder by the rotor blades, causing the rudder to become detached from the aircraft in flight. It was considered that the pilot endeavoured to carry out a circuit of the strip after he perceived that there was insufficient distance remaining to safely land the aircraft. The reason for the sharp change of attitude on the downwind leg could not be positively established, but was probably due either to turbulence or an incorrect control input by the pilot. When the nose pitched down, the airflow through the rotor disc would have been significantly reduced. This would have led to a loss of rotor RPM and a consequent loss of performance of the rotor to the stage where control of the aircraft could not be regained.

Significant Factors:

1. The pilot had only limited experience on the aircraft.

2. Towards the end of a hop along the strip the pilot perceived that there was insufficient strip remaining to permit a safe landing. 3 During manoeuvring to return for a landing the aircraft made a large change of pitch attitude.
4. The pilot did not have the necessary skills to regain control of the aircraft.