

AIRCRAFT ACCIDENT INVESTIGATION
SUMMARY REPORT

Reference No.
AS/721/1016

1. LOCATION OF OCCURRENCE

Probably in the Gordonvale area, Queensland.	Height a.m.s.l. (ft) -	Date 26.4.72	Time (Local) -	Zone EST
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2. THE AIRCRAFT

Make and Model Bell 47 G3B1	Registration VH-FJO
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3. CONCLUSIONS

- (i) On 26 April, 1972, a Bell 47 G3B1 helicopter registered VH-FJO disappeared while on a flight in the Gordonvale, Queensland, area and no trace has been found of the aircraft or its occupants.
- (ii) The aircraft was owned and operated by Helicopter Transport Pty. Ltd. of Cairns, Queensland. It was on a private flight for the purpose of testing the aircraft's engine turbocharger system.
- (iii) The aircraft was flown by Charles Ross KEITH who was the holder of a Commercial Helicopter Pilot Licence. His total helicopter experience was 1,295 hours, of which approximately 578 hours had been gained on Bell 47G type helicopters. Grahame Edward THOMPSON, the holder of an Aircraft Maintenance Engineer Licence, was also on board the aircraft.
- (iv) The aircraft was operating under a certificate of airworthiness which was valid until 15 June, 1976, and there was no evidence that the aircraft was in other than airworthy condition.
- (v) Recent test flights had shown that the engine was producing slightly less than full power at altitudes above 6,000 feet. Prior to the flight on which the aircraft disappeared, Grahame Edward THOMPSON adjusted the turbocharger waste gate butterfly to approximately minimum tolerance clearance, in the closed position. It was expected that the adjustment would restore engine power for operations above 6,000 feet and the purpose of the test flight was to see if this aim had been achieved.
- (vi) There was no evidence to suggest that the gross weight of the aircraft or the position of the centre of gravity, were not within prescribed limits.
- (vii) The weather conditions predicted in the area forecast were for scattered showers on the coast and adjacent highlands, 4/8ths of stratus cloud with base 1200 feet in showers, otherwise 4/8ths of cumulus between 2,500 and 8,000 feet with isolated tops to 12,000 feet, and 4/8ths of strato cumulus between 5,000 and 7,000 feet. Intermittent moderate turbulence below 7,000 feet was forecast. A meteorological balloon flight from Cairns at 0915 hours indicated that the winds up to an altitude of 6,000 feet were generally from south-east to east-south-east at 30 knots. The weather conditions in the Gordonvale area were substantially as forecast, but with the amount of cumulus cloud increasing and lowering to a base of 2,000 feet throughout the period.
- (viii) Before departure from Cairns the pilot attended the briefing office. The current area forecast covering the area of the intended flight was available in a rack on a self help basis, but it could not be determined if the pilot obtained a copy or spoke to the Meteorological Bureau forecaster on duty at the time. Before submitting his flight plan, the pilot phoned Cairns Control Tower to inquire in which area he could expect to be cleared for the proposed flight. He was told to expect the False Cape to Cape Grafton area, because at that time it was the only area visible from the Tower in which blue sky could be seen. The aircraft was not equipped for flight under Instrument Flight Rules and the pilot submitted a flight plan for flight under Visual Flight Rules from Cairns to the Cape Grafton area, with a climb to an altitude of 10,000 feet. The flight plan indicated that the flight time interval would be 30 minutes and that the total fuel endurance was 100 minutes. The pilot indicated on his flight plan that he would use full radio reporting procedures reporting at scheduled times, if required, throughout the flight.

CONCLUSIONS (Cont'd)

(ix) The aircraft requested a hover clearance from Cairns Tower at 0925 hours, and at 0927 hours the tower controller notified the pilot that he had seen blue sky south of the city one minute earlier and inquired if that area would be suitable for the flight. The pilot replied in the affirmative and said he would operate south of Gordonvale to 10,000 feet. The tower issued the appropriate airways clearance.

(x) The aircraft departed from Cairns at 0929 hours and at 0953 hours the pilot notified Cairns Tower that he was unable to climb above 6,000 feet. He inquired if there were any breaks in the cloud in the Cairns aerodrome area which would allow him to return and climb to 10,000 feet. The Tower Controller notified the pilot that the sky was completely overcast and the pilot requested a clearance to return on descent to Cairns. The tower controller issued a clearance for the aircraft to make a visual approach with an instruction to report approaching the city. At 0954 hours the pilot acknowledged receipt of the clearance by saying the aircraft's call sign. No further communications were received and the aircraft did not arrive at Cairns.

(xi) At 1022 hours, after numerous efforts to establish contact with the aircraft had been unsuccessful, Cairns Tower declared the Uncertainty Phase of Search and Rescue Procedures. At 1030 hours, after further efforts to contact the aircraft, the Alert Phase was declared. The Distress Phase was declared by Townsville Operational Control Centre at 1101 hours and search action was initiated.

(xii) The first search aircraft departed Cairns at 1214 hours and during the succeeding days civil and military aircraft flew 74 sorties involving a total of 150 hours 45 minutes. The air search was supplemented by extensive ground searching. The search continued until 1700 hours on 18 May, 1972.

(xiii) The area searched was roughly rectangular in shape. It covered an area from Yorkeys Knob (5 miles north of Cairns Airport), to Babinda, (28 miles to the south), and from Little Turtle Bay, (12 miles to the east), to a point 11 miles west of Cairns Airport. The total area searched was in excess of 800 square miles and much of the area was searched many times. Large portions of the area searched consisted of densely foliated rough mountainous terrain, which would make detection of a crashed aircraft extremely difficult.

4. OPINION AS TO CAUSE

The reason for the aircraft not reaching its destination has not been determined.

Release approved  (D.S. GRAHAM)	Designation Assistant Director-General (Air Safety Investigation)	Date 22.5.1973
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