

AIRCRAFT ACCIDENT INVESTIGATION  
SUMMARY REPORT

Reference No.  
AS/701/1004

1. LOCATION OF OCCURRENCE

|                              |                                   |                 |                      |             |
|------------------------------|-----------------------------------|-----------------|----------------------|-------------|
| Bell Peak North, Queensland. | Height a.m.s.l. (ft)<br>3270 feet | Date<br>28.1.70 | Time (Local)<br>2137 | Zone<br>EST |
|------------------------------|-----------------------------------|-----------------|----------------------|-------------|

2. THE AIRCRAFT

|                              |                        |
|------------------------------|------------------------|
| Make and Model<br>Cessna 402 | Registration<br>VH-RIZ |
|------------------------------|------------------------|

3. CONCLUSIONS

On 28th January, 1970 at approximately 2137 hours EST, a Cessna 402 aircraft, registered VH-RIZ, struck trees and crashed to the ground on the western side of Bell Peak North, Queensland.

(ii) The aircraft was owned by Hawker De Havilland (Aust.) Pty. Ltd., of Sydney and at the time of the accident, it was engaged on a delivery flight to Cairns. The class of operation was private.

(iii) The pilot, Patrick John Hill, and the sole passenger, Stewart Rutherford Drummond, were both killed in the accident.

(iv) The aircraft was virtually destroyed by impact forces.

(v) The pilot, aged 29 years, held a current Senior Commercial Pilot Licence which was endorsed for the Cessna 402 type of aircraft. He was the holder of a Class One Instrument Rating valid for multi-engined aircraft and this rating had been renewed after a flight test on 22nd January 1970. His total flying experience amounted to 2325 hours and, of this, 21 hours had been flown on Cessna 402 aircraft. He had recorded totals of 130 hours of instrument flying and 63 hours of night flying.

(vi) The aircraft was operating under a current certificate of airworthiness. At the time of the accident this certificate is deemed to have been suspended under the terms of Air Navigation Regulation 34(1), because the aircraft maintenance records indicate that certain mandatory inspections, modifications and overhaul of components had not been carried out. The Maintenance Release current in respect of the aircraft for the period had not been correctly issued. There is no evidence that these irregularities contributed in any way to the accident.

(vii) There is no evidence that the gross weight of the aircraft and the position of the centre of gravity were other than within the specified limits throughout the flight.

(viii) The weather in the vicinity of the accident site and at Cairns, 15 miles to the north west, was fine with 2/8 of cloud at 2500 feet and 2/8 of cloud at 4000 feet. The wind was calm and the observed visibility at Cairns was 26 miles.

(ix) The aircraft departed Bankstown, New South Wales, in the early afternoon of 28th January 1970 and proceeded to Brisbane and Mackay under the procedures applicable to flight under the Instrument Flight Rules.

(x) At Mackay the pilot submitted a further flight plan for the sector Mackay to Cairns and indicated that he would continue operating to the Instrument Flight Rules and wished to cruise at an altitude of 10,000 feet. The flight was to follow the normal route over Townsville and South Dunk Island and the lowest safe altitude appropriate to each leg was entered on the flight plan. The aircraft was equipped with radio communications frequencies appropriate to the route. The pilot nominated as navigation aids the Automatic Direction Finder, VHF Omni Range and Instrument Landing System, for which appropriate airborne equipment was installed in the aircraft and for which his Instrument Rating was endorsed. He did not nominate the Distance Measuring Equipment with which the aircraft was fitted but for the use of which his Instrument Rating was not valid.

## CONCLUSIONS (Cont'd)

(xi) The flight departed Mackay at 1949 hours EST and proceeded normally in accordance with the flight plan submitted. The aircraft first made contact with Cairns at 2118 hours, when the pilot reported that he was over Dunk Island at 10,000 feet altitude. He also advised that he estimated arrival at Cairns at 2143 hours and wished to commence descent from 10,000 feet at 2125 hours. At this latter time the aircraft would be approximately 50 miles from Cairns.

(xii) At Cairns the separate functions of area control, approach control and aerodrome control are vested in one air traffic control position. Area control is exercised in controlled airspace beyond 30 miles radius from the airport, approach control in the area between 30 miles radius and the aerodrome control zone and aerodrome control within the aerodrome control zone. The Cairns controller, located in the Cairns Control Tower, responded to the call made at 2118 hours from VH-RIZ, and instructed the pilot to make a visual approach commencing at 2125 hours. The altimeter setting of 1009 millibars was passed to the pilot and he was requested to call at 30 miles from Cairns.

(xiii) The pilot called Cairns at 2123 hours and asked if the Distance Measuring Equipment was operating and was advised that it was. At 2125 hours he advised Cairns that the aircraft was leaving 10,000 feet and immediately afterwards requested details of the present weather conditions at the aerodrome. The Cairns controller advised that the weather conditions were "2/8 of cloud, base two five zero zero and 2/8 at four thousand, the wind calm QNH one zero zero nine". This report was acknowledged by the pilot.

(xiv) The aircraft did not call as requested at 30 miles. At 2135 hours the Cairns controller called the aircraft and requested its present position. The pilot indicated that he was 17 miles south, descending through the 3500 feet level. He was instructed to report at 10 miles from Cairns and advised to expect the use of runway 15. The pilot then tendered apologies for his failure to call at 30 miles and this was the last transmission heard from the aircraft.

(xv) At approximately 2139 hours a telephone call was received by the controller in the Cairns Control Tower to the effect that a resident of Aloomba, some 15 miles south of Cairns had heard a noise which he had interpreted as an aircraft crashing into timber. The controller immediately began calling VH-RIZ which was the only aircraft in his area of responsibility. There was no response to these calls or to further calls made and the aircraft did not arrive at Cairns.

(xvi) Following an air search early on the morning of 29th January 1970, the wreckage of the aircraft was located approximately 100 feet below the summit of Bell Peak North, at an altitude of 3270 feet above sea level.

(xvii) The aircraft crashed in a heavily timbered area and the wreckage was scattered on a mean bearing of 310 degrees magnetic. Examination of the impact marks indicated that the aircraft had been under control in substantially level flight and probably descending at a shallow angle at the time of the accident.

(xviii) Examination of the wreckage did not produce any evidence of structural failure or control difficulty prior to impact. Both altimeters fitted to the aircraft were destroyed. The location of the wreckage and the record of communications indicate that the pilot had correctly set the altimeter and was aware of the actual altitude of the aircraft.

(xix) The lowest safe altitude for aircraft operating on the route segment South Dunk Island to Cairns under the Instrument Flight Rules is specified in Aeronautical Information Publication at section MAP RNC5 as 6290 feet. The Distance Measuring Equipment arrival procedure for aircraft inbound to Cairns from Townsville is set out at section MAP RNC5 panel 6 and in part instructs that at 22 miles DME distance the aircraft may descend to 5200 feet and at 15 miles may descend to 4500 feet.

**CONCLUSIONS** (Cont'd)

(xx) By conducting a visual approach below the limiting altitudes contained in the route specifications while the aircraft was at a distance of more than 3 miles from Cairns Airport, the pilot did not comply with the instructions contained in the Aeronautical Information Publication, RAC/OPS 5.2. paragraph 1.4.1.1.(e).

(xxi) In clearing the aircraft to commence a visual approach while it was still at a distance in excess of 30 miles from the destination aerodrome, the Air Traffic Controller did not comply with the prescribed operating instructions.

**4. OPINION AS TO CAUSE**

The cause of the accident was that the pilot operated the aircraft at an unsafe altitude.

Release approved



(D.S. GRAHAM)

Designation

Assistant Director-General  
(Air Safety Investigation)

Date

4.2.1971