

AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT

AS/743/1035

Publication of this report is authorised by the Director-General of Civil Aviation under the provisions of Air Navigation Regulation 283(1)

1. LOCATION OF OCCURRENCE

Dom Dom, nine kilometres north-east of Healesville, Victoria	Height a.m.s.l. 2300 feet	Date 18.6.74	Time (Local) 1545 hours	Zone EST
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2. THE AIRCRAFT

Make and Model Cessna 210H	Registration VH-KIG
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3. CONCLUSIONS

- (i) At about 1545 hours EST on 18 June, 1974 a Cessna 210H aircraft, registered VH-KIG, flew into the south-western side of Mount Dom Dom, Victoria, about 100 feet below the summit. The aircraft was on a private flight from Archerfield, Queensland, via Mudgee, New South Wales, to Moorabbin, Victoria. The four occupants were killed and the aircraft was destroyed by impact forces and subsequent fire.
- (ii) The holder of the Certificate of Registration for the aircraft was F. Ricardo of 26 Beauview Parade, Ivanhoe, Victoria and the aircraft was normally operated by the Whittlesea Flying School Pty. Ltd. of Whittlesea, Victoria.
- (iii) The pilot of the aircraft was Ruth Isabel Hodges, aged 53 years, who held a valid private pilot licence endorsed for the aircraft type. She also held a Class One instrument rating which authorised her to fly in instrument meteorological conditions (IMC) using Automatic Direction Finding (ADF), VHF Omni Range (VOR), Visual Aural Range (VAR) and Localiser (LLZ) radio navigation and approach aids. Her total flying experience was 1019 hours of which 105 hours was on Cessna 210 type aircraft. Mrs. Hodges underwent a flight test in May, 1974 for renewal of her instrument rating and at this time her instrument flying experience amounted to some 260 hours.
- (iv) The three passengers on board the aircraft were Louise Ann Maree Gursanscky who occupied the front right hand seat, Rhonda Violet Dennis and Joy Rosemary Dixon. Both Mrs. Gursanscky and Mrs. Dennis held current private pilot licences and Mrs. Dixon held a student pilot licence. Of the three passengers, only Mrs. Gursanscky was qualified to fly the Cessna 210 type aircraft.
- (v) The aircraft was operating under a certificate of airworthiness which was valid from 19 March, 1968 until 18 March, 1977 and there is no evidence that it was in other than an airworthy condition. It was fitted with HF and VHF radio communication equipment and ADF/VOR radio navigation equipment. The standard of the radio navigation equipment which was fitted to the aircraft and the maintenance procedures specified for its flight instrumentation limited approval of its operations to visual meteorological conditions (VMC) by day and night. In an emergency situation, however, the flight instrumentation would have been quite adequate to enable flight in IMC to be carried out, safely, by an instrument rated pilot.
- (vi) The centre of gravity position and gross weight of the aircraft were within safe limits.
- (vii) At 0952 hours the aircraft departed Archerfield where a visual flight rules (VFR) flight plan and weather briefing had been completed and proceeded to Mudgee apparently without incident. At Mudgee the aircraft was refuelled to capacity and, at normal consumption rates, its fuel endurance would then have been 340 minutes. Further weather information was obtained from Moorabbin by telephone and this information included advice of the marginal availability of VMC conditions over the mountains north of Moorabbin.
- (viii) The aircraft departed Mudgee at 1324 hours and its expected time of arrival at Moorabbin was 1551 hours. The flight was planned via Cowra, Wagga and Albury with 1630 hours being nominated as the SARTIME (time for the initiation of search and rescue action). The aircraft subsequently reported over Albury at 1500 hours, cruising below 5000 feet and estimating arrival at Moorabbin at 1551 hours.
- (ix) At 1514 hours the aircraft was advised that, during the afternoon, reports had been received that the Kilmore gap was closed due heavy cloud and rain showers. At 1516 hours the current Moorabbin weather report was passed to VH-KIG. This was 5/8 strato-cumulus cloud with a base of 2500 feet, visibility 30 kilometres.
- (x) The aircraft next reported at Eildon Weir at 1531 hours stating that conditions were CAVOK (a term used where visibility is five miles or more, where there is no precipitation and no thunderstorm and where there is no cloud below a height of 5000 feet above ground level). At this time VH-KIG was further advised of marginal weather conditions further south which had been reported by the pilot of another aircraft.

3. CONCLUSIONS (Cont'd.)

(xi) Some time later ground witnesses saw and heard the aircraft as it flew southward over Taggerty, Buxton and Narbethong at low level beneath an overcast cloud layer obscuring the tops of the mountain ranges on either side of the Maroondah Highway, which the aircraft appeared to be following. Forests Commission workers $1\frac{1}{2}$ miles south-west of Narbethong saw the aircraft at 300 to 500 feet above ground level still apparently following the highway towards where it crosses rising terrain immediately to the west of Mount Dom Dom. Ahead of the aircraft these witnesses could see that cloud completely covered Mount Dom Dom, except for the lower portion which was just visible to them above a tree line. As they watched, the engine noise increased as the aircraft entered cloud and it became obscured from their view. The noise of the aircraft then faded quite rapidly.

(xii) The last tape-recorded radio communication from VH-KIG was an acknowledgement to Melbourne Flight Service of advice at 1531 hours of the marginal weather conditions south of Eildon Weir. At about 1543 hours, the pilot of another aircraft flying in the area twice heard VH-KIG make initial contact calls to Melbourne Flight Service on VHF but these were not received, probably because of the low level of the aircraft. It was at about this time that the aircraft was observed by the Forests Commission workers to enter cloud. A call to VH-KIG by Melbourne Flight Service at 1544 hours, requesting the aircraft's position, was not answered.

(xiii) When the aircraft failed to reply to further calls from Melbourne Flight Service and did not report approaching Moorabbin, Search and Rescue (SAR) procedures were implemented. The distress phase of SAR was declared after earlier phases and associated checks had failed to locate the aircraft. A search was initiated and at about 1550 hours on the following day the wreckage of the aircraft was located in densely timbered country. It had struck the south-western side of Mount Dom Dom about 100 feet below its summit or about 500-600 feet above the height of the aircraft when it was seen to enter cloud.

(xiv) Examination of the wreckage failed to reveal any evidence of pre-impact structural failure, malfunction of systems or other mechanical failure which could have contributed to the accident. Damage to the wings and tailplane indicated that the aircraft was in a climbing attitude at impact and damage to the propeller was consistent with a high power delivery.

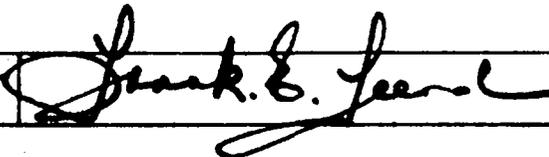
(xv) The eyewitness evidence indicates that the pilot was attempting to maintain visual flight below cloud but as the clearance between the cloud base and the rising terrain around Mt. Dom Dom reduced this finally became impossible.

(xvi) The aircraft struck the ground while on a heading approximately 90 degrees to port of the heading on which it was seen to enter cloud. This may have resulted from the pilot attempting to make a 180 degree turn back to the area of lower terrain she had just left, or she may have intended to climb in an orbit in order to continue in IMC conditions with adequate terrain clearance. Whatever the reason, it is clear that the pilot persisted for too long in attempting to reach her destination with visual reference below cloud. After entering cloud she would not have been aware of the exact location or extent of the high ground that was obscured by cloud.

4. OPINION AS TO CAUSE

The probable cause of the accident was that the pilot continued flight below a low cloud base and towards rising terrain beyond the point where the safe adoption of an alternative procedure was possible.

Approved for
publication



(Frank E. Yeend)

Delegate of the Director-General of Civil Aviation

Date

4.3.1975

DEFINITIONS

ACCIDENT - An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all those persons have disembarked and in which

- (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached to the aircraft; or
- (b) the aircraft suffers substantial damage.

FATAL INJURY - Any injury which results in death within 30 days.

SERIOUS INJURY - Any injury other than a fatal injury which

- (a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or
- (b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- (c) involves lacerations which cause severe haemorrhages, nerve, muscle or tendon damage; or
- (d) involves injury to any internal organ; or
- (e) involves second or third degree burns, or any burns affecting more than five percent of the body surface.

MINOR INJURY - Any injury other than as defined under "Fatal Injury" or "Serious Injury".

DESTROYED - Consumed by fire, demolished or damaged beyond repair.

SUBSTANTIAL DAMAGE - Damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft and which would normally require major repair or replacement of the affected component. The following types of damage are specifically excluded: engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, taxi-ing damage to propeller blades, damage to tyres, engine accessories, brakes, or wingtips.

MINOR DAMAGE - Damage other than as defined under "Destroyed" or "Substantial Damage".