



GOVERNMENT OF AUSTRALIA
DEPARTMENT OF TRANSPORT
AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT

Publication of this report is authorised by the Secretary under the provisions of Air Navigation Regulation 283(I)

Reference No.
AS/741/1001

1. LOCATION OF OCCURRENCE

1400 metres north of Barkly Downs homestead, Queensland	Height a.m.s.l. 820 feet	Date 4.1.74	Time (Local) 2020 hours	Zone EST
---	-----------------------------	----------------	----------------------------	-------------

2. THE AIRCRAFT

Make and Model Beech 35/C33A "Debonair"	Registration VH-DEW
--	------------------------

3. CONCLUSIONS

3.1 At approximately 2020 hours EST on 4 January, 1974 a Beech 35/C33A "Debonair" aircraft, registered VH-DEW, struck the ground in conditions of heavy rain and darkness some 1400 metres north of Barkly Downs homestead, Queensland.

3.2 On board the aircraft were the pilot, Ian Fraser Smith and three passengers, Cheryl Margaret Manners, Elsie May Miller and Lionel Sapsford Paulus. The aircraft was destroyed in the accident and all the occupants were killed.

3.3 The pilot, aged 28 years, was the holder of a commercial pilot licence endorsed for the aircraft type. He did not hold any instrument rating and was therefore restricted to flight in visual meteorological conditions (VMC) by day. His total flying experience was 1068 hours and he had flown 27 hours on Beech Debonair aircraft, including 22 hours in the past 90 days.

3.4 The Operator, and the holder of the certificate of registration for the aircraft, was Wright's Airways Pty. Ltd., of 5 Crystal Street, Mount Isa, Queensland. The aircraft was engaged on a charter flight for the purpose of carrying passengers from Boulia to Mount Isa.

3.5 The certificate of airworthiness for the aircraft was valid until 27 September, 1976 and there is no evidence that it was in other than an airworthy condition. It was equipped for flight under the Visual Flight Rules (VFR) but not for flight under the Instrument Flight Rules (IFR). ADF and VOR radio navigation equipments were fitted to the aircraft, but they were unserviceable. The aircraft was not equipped with an artificial horizon. None of this equipment is required for VFR category flights.

3.6 There was no evidence to suggest that either the gross weight of the aircraft or the position of its centre of gravity was outside safe limits at the time of the accident.

3.7 Earlier on the day of this accident Mr. Smith was engaged on another flight in this aircraft from which he returned to Mount Isa at 1718 hours. It was then arranged that he would carry out a charter flight to Boulia and return and, while he arranged for the aircraft to be refuelled, another pilot prepared and submitted a flight plan on his behalf. The plan indicated that the flight would be carried out under the Visual Flight Rules with a time interval of 49 minutes each way, and that the aircraft's fuel endurance would be 300 minutes. The time of last light at Mount Isa was 1952 hours and this was annotated on the plan. The area meteorological forecast predicted broken cumulus cloud with a base of 2,500 feet, occasional cumulo-nimbus cloud with a base of 3,500 feet and broken stratus cloud down to 1,000 feet associated with precipitation. Scattered rain showers and thunderstorms were also predicted with a general visibility of 20 nautical miles, reduced to 2,000 yards in precipitation. Turbulence was forecast to be severe in the vicinity of the cumulo-nimbus cloud. The Mount Isa terminal forecast predicted a visibility of 15 nautical miles, rain showers, 2/8 stratus cloud, base 1,500 feet, 4/8 cumulus cloud, base 3,000 feet, 30% probability of thunderstorms with 2/8 cumulo-nimbus cloud, base 2,000 feet. The pilot who prepared the flight plan gave Mr. Smith a copy of it, together with copies of the area forecast and the Mount Isa terminal forecast.

3.8 VH-DEW departed Mount Isa at 1742 hours and, en route to Boulia, the sole passenger noticed storms building up about 30 miles south of Mount Isa. The pilot expected to return to Mount Isa without passengers but, after landing and taxiing in at Boulia, there was some delay to his subsequent departure while arrangements were made for him to return with three passengers to Mount Isa.

3.9 The aircraft departed Boulia at 1854 hours and, at 1925 hours, established radio communication with the Mount Isa Flight Service Unit. It was given an airways clearance to track direct to Mount Isa and enter the control zone below 3,000 feet. The aircraft was also advised that, at Mount Isa, the wind was from 020 degrees at 10 knots; there was 2/8 nimbo-stratus cloud, base 1,500 feet; there was rain approximately five to 10 miles south of Mount Isa and there were thunderstorms and lightning to the south-west. At this stage the aircraft would have been in the vicinity of Dajarra aerodrome, which was serviceable and where visual meteorological conditions existed.

3. CONCLUSIONS (Cont'd)

3.10 VH-DEW established communication with Mount Isa Tower at 1932 hours on a frequency of 118.1 MHz and reported "30 miles south below 3,000 feet". The aircraft was advised that the wind was from 120 degrees at 15 to 25 knots, that there was heavy rain approaching from the south and that the visibility to the south was approximately three miles. At 1935 hours the pilot said that he was "currently in the clear, established on track abeam station Woonigan" and at 1938 hours Mount Isa Tower advised VH-DEW that it was beginning to rain at the airport. The pilot replied that he would "track around to the west". The aircraft was also advised that the weather appeared to be travelling from south-east to north-west and that there were two active thunderstorms approximately 15 miles south-west of Mount Isa. The pilot acknowledged receipt of this information saying, "don't I know it". Another aircraft was then inbound to Mount Isa from the north and, after being advised by Mount Isa Tower at 1944 hours that there was very heavy rain at the airport and that visibility was reduced to one mile, the pilot of this aircraft said that he was diverting to New May Downs.

3.11 At 1945 hours the pilot of VH-DEW said that he was unsure of his position to the south-west of the rainstorm and he was commencing to track to the north. The Alert Phase of Search and Rescue procedures was immediately declared. At 1946 hours he said he was steering 330 degrees. A message was then passed to VH-DEW that the other aircraft was landing at New May Downs and had advised that, to the west of the rain, it was reasonably clear and that runway lighting would be arranged at New May Downs if he wished. The reply from VH-DEW was "affirmative, still unsure of my position". At 1949 hours the pilot said that the aircraft's fuel endurance was 200 minutes and that, as suggested by Mt. Isa, he was climbing to 5,000 feet.

3.12 In the period which followed there were frequent communications between VH-DEW and Mount Isa Tower during which the controller attempted to ascertain the aircraft's position from topographical and heading information provided by the pilot. In reply to a request from VH-DEW at 1954 hours, Mount Isa Tower advised that visibility at the airport was one to two miles in heavy rain. The pilot reported that it appeared to be clear ahead and to the north and that he was still steering 330 degrees and maintaining 4,000 feet. At 1955 hours he indicated that he would take up a heading of 030 degrees. At 1958 hours the pilot advised sighting a light to port and that he was turning towards it. At 2002 hours he reported that the light was under a heavy rain shower and shortly afterwards said that he was descending to 2000 feet. At 2008 hours, following advice that very heavy rain was falling at New May Downs, action was initiated to have aerodrome lighting turned on at Camooweal and Cloncurry. The pilot said at 2013 hours that "we sight this light from time to time but its under a heavy rain storm and I can't proceed to it due severe turbulence." At 2017 hours he advised "tracking on a course of 220 degrees towards the lights" and when asked if they appeared to be set up for runway lights the pilot replied "stand by", which was the last transmission received from the aircraft. Because of the cessation of communication the Distress Phase was declared at 2030 hours.

3.13 Heavy rain commenced to fall at Barkly Downs homestead, which is situated some 111 kilometres west-north-west of Mount Isa, at about 2000 hours. A few minutes later, while there was still heavy rain accompanied by brilliant flashes of lightning and thunder every few seconds, persons at the homestead heard the sound of, and saw the lights of, an aircraft at a height estimated as about 250 feet. The aircraft, which was initially heading north-north-west away from the homestead, then made a right turn through about 180 degrees and headed back towards it. Before reaching the homestead the aircraft made another right turn of about 180 degrees and again headed away. Witnesses thought it then turned right and, following an increase in engine noise, they heard the sound of an impact.

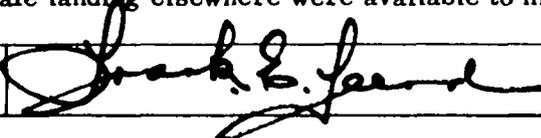
3.14 People at the homestead immediately organised a ground search, but working in very heavy rain and boggy terrain they were unable to find the aircraft. A second attempt was commenced at 2215 hours and the wreckage was located at about 2300 hours.

3.15 Examination of the wreckage subsequently established that the aircraft had struck the ground on a south-westerly heading, at high speed in a 20 to 30 degrees nose down attitude and while slightly banked to the right. The aircraft had broken up on impact and the wreckage trail extended about 137 metres beyond the point of initial ground contact. There was no evidence of any pre-impact structural failure, defect or malfunction which could have contributed to the accident.

OPINION AS TO CAUSE

The cause of the accident was that the pilot, when faced with a situation of deteriorating weather and approaching darkness, persisted in his attempt to reach Mount Isa when alternative actions to effect a safe landing elsewhere were available to him.

Approved for
publication



(Frank E. Yeend)
Delegate of the Secretary

Date

16.4.1975