No. 29

Kenting Aviation Limited, Lockheed Hudson, CF-CRL, crashed 36 miles southeast of Rupert House, P.Q., on 3 July 1957. Report No. 57-13 released by the Department of Transport, Canada.

Circumstances

The aircraft, owned by the Photographic Survey Corporation Limited, departed Great Whale River, P.Q. on 3 July 1957 at approximately 0915 hours eastern standard time on a non-scheduled flight to Val d'Or, P.Q., with the pilot, a maintenance engineer and two passengers aboard. An instrument flight plan was filed prior to departure, and the aircraft was to fly at 7 000 ft direct to Val d'Or, the estimated time of arrival being 1200 hours. Following take-off CF-CRL climbed on a magnetic heading of 185° on instruments, and the pilot was requested to report passing through 7 000 ft and to continue the climb to 9 000 ft. After passing routine messages, in which the freezing level of 10 000 ft was included, the pilot reported at 0928 hours that he was visual at 10 000 ft and that he would maintain this altitude to Val d'Or. At 0930 he stated he would maintain 1 000 ft on top of the overcast, i.e. 11 000 ft. At 0957 the pilot requested a radio check, and Great Whale River informed him that his transmission was weak. The pilot acknowledged this message which was the last transmission received from him. At 1600 hours the RCAF Search and Rescue Co-ordination Centre at Trenton, Ontario was notified that the aircraft was overdue, and a search was begun. The wreckage was found on 25 July, 36 miles from Rupert House, P.Q., on a bearing of 153° True. All four occupants had been killed in the crash, and the aircraft was destroyed.

Investigation and Evidence

Examination of the wreckage revealed no evidence that might indicate malfunctioning of the engine, airframe or controls prior to the accident. The aircraft was completely demolished on impact and pieces of the wreckage were scattered over an area approximately 350 ft long by 200 ft wide. At the point of impact, there was a crater 15 ft long, 6 ft wide and 4 ft deep. The size and depth of the crater made in solid ground, together with the relatively small area over which the debris was scattered, indicated that the aircraft struck the ground at high speed at an angle of 70 degrees or more from the horizontal. While the scene of the accident showed evidence of an intense fire, it was not established conclusively whether the fire occurred on impact or afterwards.

The pilot had accumulated a total of 3 000 hours of flying experience of which approximately 150 hours had been acquired on Lockheed Hudson type aircraft. About 150 hours had been flown during the 90 days prior to the accident. On 12 April 1957 the pilot was retested for the renewal of his Class I Instrument Rating. His rating was renewed for three months instead of the usual six as he was assessed as being low average.

The aircraft was adequately equipped to navigate without visual reference to the ground but was not fitted with de-icing equipment.

The navigational aids available to aircraft operating between Great Whale River and Val d'Or are two non-directional radio beacons which operate continually.

It was indicated that at 0915 hours on 3 July the weather conditions at Great Whale River in which the pilot took off were zero ceiling and one eighth of a mile visibility, and that, as a result of lack of communications to the south, he had no indication of the weather along the intended route nor at his destination. It was not possible to determine whether or not the pilot obtained a weather forecast before leaving Great Whale River.

An "aftercast" of the weather along the route from Great Whale River to Val d'Or at the time of the accident indicated that a cold front, which passed Great Whale River at 0900 hours, was moving eastward, accompanied by light rain showers and followed by fog and low stratus clouds. The cold front was lying in a NNE-SSW direction, and the flight would, therefore, have been conducted in the frontal zone of the weather system. Cloud layers extended upwards from 0 - 500 feet above ground to 14-16 000 feet asl, in which isolated heavy cumulus and cumulonimbus clouds with bases at 6 000 feet and tops at 25 000 feet were embedded. Thunderstorms were also present, and there were light to moderate rain showers particularly in the frontal zone. Moderate to heavy icing was possible above the freezing level (11 000 feet) in cumulonimbus clouds and the wind was west-northwest at 25 knots.

Probable Cause

The cause of the accident was not conclusively determined. It should be noted, however, that the pilot took off in weather conditions below permissible limits, in an area sparsely served with aids to navigation, in an aircraft not equipped with deicing equipment.

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