No. 20

Queen Charlotte Airlines Limited, Consolidated PBY-5A aircraft, CF-FOQ,

crashed into Mount Benson, Vancouver Island, B.C.

whilst on a non-scheduled flight on 17 October 1951.

Dept. of Transport, Air Services Branch, Civil Aviation Division,

Report No. 51-38

Circumstances

The aircraft left Kildala, B.C. at 1532 bound for Vancouver carrying twenty passengers and a crew of three. At 1733 the aircraft reported over Sullivan Bay and gave its ETA Vancouver as 1840. At 1825 the ETA Vancouver was revised to 1903 on account of strong south-east winds. The next and last radio transmission received was at 1848 when the aircraft reported it was 20 miles west of Vancouver at 2 000 feet and requested clearance to the Tower frequency. At approximately 1855 hours the aircraft crashed into Mount Benson. All occupants were killed and the aircraft was destroyed.

Investigation and Evidence

Immediately prior to the accident, the aircraft was seen in the vicinity of Wellington, B.C. by a number of witnesses (almost simultaneously) who stated that the aircraft was flying at approximately 500 feet above the ground in rain and in the base of or immediately below cloud, and heading toward Mount Benson, which rises to 3 366 feet and is situated 4-1/2 miles west of Nanaimo. At approximately 1855 hours, the aircraft was heard by witnesses to strike the mountain and, although their vision was obscured by cloud, the glow from the resulting fire was seen.

Mount Benson rises steeply to a peak 3 366 feet high and the actual point of impact of the aircraft was 1 600 feet ASL. The flight path of the aircraft just prior to the accident was 225° T., determined by broken snags about 60 to 70 feet in height. One large snag about 16 inches in diameter and approximately 200 feet from the final crash was broken off and the right wing, crumpled, was found nearby. The aircraft struck a rock wall which was almost vertical and then fell back onto a narrow ledge approximately 15 feet below. Examination of the wreckage indicated that the aircraft struck the face of the mountain in an inverted position.

Examination failed to disclose any evidence of malfunctioning of the airframe, engines or controls, though the latter were so badly burned as to offer no reliable information. The aircraft log books were not found and are

presumed to have been destroyed. It was determined that the aircraft had adequate fuel on board for the flight and that it had been loaded in conformity with the requirements of the Certificate of Airworthiness. The crew were properly certificated.

The forecast issued by the Vancouver District Aviation Forecast office, valid from 1400-0200 hours indicated that a general lowering of cloud base was expected with frequent ceilings of 800 feet in the area of Vancouver Island. It was established that the latest Meteorological Information was not obtained by the captain before taking off on the south bound trip. At the time of the accident eye-witnesses stated that in that vicinity the cloud base was 400 to 500 feet, one witness who was about 300 feet further up the mountain stated that there was fog down into the trees. Heavy rain was also reported. It is to be noted furthermore that the accident occurred at 1855 hours which is one hour and six minutes after official night.

Recapitulation of the flight showed that when the aircraft's position was reported as 20 miles west of Vancouver at 2 000 feet, it must actually have been in the vicinity of 18 miles west to northwest of Nanaimo. This is confirmed by the aircraft's having been seen over the southern part of Nanaimo at 1855 just before the crash. It would appear therefore that through a navigation error the lights of Nanaimo were mistaken by the crew for those of Vancouver and that the aircraft turned to the right to avoid passing over what they believed to be Vancouver.

Probable Cause

The probable cause of this accident was the continuance of the flight VFR at night under conditions of restricted visibility. Whilst it cannot be determined conclusively, it is probable that through a navigation error the pilot mistook Nanaimo for Vancouver. This may have been precipitated by inadequate pre-flight preparation in that the latest Meteorological Information was not obtained by the pilot before taking off on the south bound flight.