

CIVIL AERONAUTICS BOARD

ACCIDENT INVESTIGATION REPORT

Adopted: December 28, 1949

Released: December 29, 1949

ALASKA AIRLINES, HOMER, ALASKA, JANUARY 20, 1949**The Accident**

At approximately 2005,¹ January 20, 1949, Alaska Airlines' Flight 8, a DC-3, NC-91006, crashed 27 miles northeast of Homer, Alaska. Three passengers and two crew members were killed and the pilot seriously injured. The aircraft was destroyed.

History of the Flight

Flight 8 took off from Naknek, Alaska, 200 miles southwest of Homer at 1805 on January 20 with a crew consisting of Captain R. D. Land, Copilot Robert Nelson Stevens, and Stewardess Lucina Nims. An instrument flight plan had been filed with Air Traffic Control to proceed to Anchorage, Alaska, via Homer and Kenai. Though the weather was forecast over this route to be clear and unlimited, an instrument plan was filed since an instrument flight plan was required for all night flights by the carrier's operating certificate. At 1921 the flight reported over the Anchor Point Intersection, 28 miles west of Homer, and also advised the Homer radio, "We will be VFR from Homer to Kenai to Elmendorf" (Anchorage). This information was immediately transmitted to Anchorage where it was delivered at 1925 to the Alaska Airlines' dispatcher. Flight 8 landed at Homer at 1935 without incident.

Takeoff was accomplished from Homer at 1950 with the same crew, three passengers, 2,270 pounds of cargo and 2,400 pounds of fuel. Total airplane weight was 21,430 pounds which was within the certificated limit, and the load was properly distributed. Just before takeoff the flight advised Homer Tower that it would proceed to Kenai in accordance with visual flight rules. This information was received by the Alaska Airlines' dispatcher in Anchorage at 1954. At

1957 the flight was advised by Kenai radio that there were no passengers or cargo at Kenai, and for this reason Flight 8 replied: "Will not land at Kenai." Approximately eight minutes after this communication at 2005, the flight struck the south side of Ptarmigan Head at an elevation of 2,800 feet, nine miles east of the center line of the airway to Kenai. Five of the six occupants were killed, and the aircraft was destroyed.

Investigation

Ptarmigan Head, elevation 3,100 feet and 27 miles northeast of Homer, is a smooth, dome-like, treeless hill, which was completely snow covered at the time of the accident. Impact marks in the snow showed that the aircraft had struck the southern slope with the wings level and the nose raised approximately 10 degrees above the horizontal. These same marks showed that the heading at the time of the crash had been 355 degrees, which is the approximate heading to Anchorage from that point.

Both engines had been torn loose from their mounts. Propeller damage indicated that considerable power was being developed at impact. Both wings and the center section had separated from the fuselage at the attaching points, and the fuselage was lying 90 degrees to the left of the line of flight in an inverted position. The nose section, including the cockpit, had been torn from the fuselage and extensively damaged. Both landing gear and flaps were in the retracted position. The trim tab controls were set for level flight.

Because of the extensive destruction of the cockpit the flight control settings were not considered indicative of their position prior to impact. The instrument panel had been torn from its mountings and all engine instrument readings had returned to zero. Barometric pressure settings for both altimeters

¹ All times referred to herein are Alaska Standard and based on the 24-hour clock.

were 30.20 inches, which was approximately the Homer barometric setting at the time of takeoff. A teardown of the radio equipment indicated that it had been in good operating condition, and that the automatic and manual radio compasses had been tuned to the Anchorage range station. When the Homer, Kenai and Anchorage radio ranges were flight checked the day following the accident, they were found to be operating normally.

An examination of the engines and the airplane disclosed no evidence of either mechanical malfunctioning or structural failure. All the maintenance records of the aircraft were reviewed and they indicated that the airplane was in good operating condition before the flight.

An aftercast of the weather indicated that at the time of the accident the ceiling and visibility in the vicinity of Ptarmigan Mountain was unlimited. The wind was from the north and estimated to be 20 to 30 knots at the top of Ptarmigan Head which could have resulted in reduced visibility from blowing snow. The air was stable and dry.

Rector Duval Land, pilot, age 31, held a valid airman certificate with an airline transport rating. He was employed by Alaska Airlines July 27, 1948. His total flight time was 7,129 hours, the majority of which was accumulated in DC-3 type equipment. He was checked out as captain by Alaska Airlines December 16, 1948. During six qualifying route checks in the latter part of November and the first part of December, Land was consistently rated as "fair" in his knowledge of route and navigational facilities, while in other items he was rated as "good" or "excellent." Because of injuries received in the accident, Land was unable to recall his takeoff at Homer or any subsequent events.

Robert Nelson Stevens, copilot, held a valid airman certificate with airline transport rating. He was employed by Alaska Airlines October 1, 1948; and had a total flight time of 2,570 hours, the majority of which was accumulated in multi-engine equipment. At the time of the accident he had made four qualifying flights over the Homer-Anchorage segment of the route in which he had been consistently rated as "below average."

Analysis

Since no difficulties were found in the mechanical operation of the airplane

or in the operation of the radio facilities, and since the air was clear, stable, and dry, there appears to be no reasonable explanation for the accident except that the airplane was flown too low to clear Ptarmigan Head. It is apparent that during the 15 minutes between the takeoff from Homer and the accident, the airplane could have climbed to approximately 7,500 feet, which would have been sufficient to clear the terrain on the intended course.

Consideration should be given to the fact that the flight was not being conducted in accordance with instrument flight rules as required by the operating certificate of Alaska Airlines. If the flight had been proceeding according to instrument flight rules, the accident probably would not have occurred since the flight would have been via the airways over a sea level route and at a minimum altitude of 4,000 feet. Another fact that should be considered was the failure of the company dispatcher to immediately advise the flight that the clearance was not authorized. The dispatcher had knowledge of the flight's intention to proceed according to visual flight rules 40 minutes prior to the accident, a sufficient time in which to advise the flight to change the flight plan. If this had been done, it is possible that the flight would have altered its course and altitude. The above facts although not the cause of the accident are considered as being contributing factors.

Findings

1. The airplane, carrier and crew were properly certificated.
2. There was no evidence of mechanical malfunctioning or structural failure of the airplane prior to the accident.
3. Radio range facilities at Homer, Kenai and Anchorage were operating normally when flight checked following the accident.
4. The aircraft crashed at an elevation of 2,800 feet on the south slope of Ptarmigan Head which has an elevation of 3,100 feet.
5. The point of impact was approximately nine miles east of the center line of the airway between Homer and Kenai.
6. At the time of the accident the air was clear, stable and dry.

Probable Cause

The Board determines that the probable cause of this accident was the action of the pilot in proceeding off the designated airway at an altitude insufficient to clear the terrain.

—16076

BY THE CIVIL AERONAUTICS BOARD:

/s/ OSWALD RYAN

/s/ JOSH LEE

/s/ HAROLD A. JONES

/s/ RUSSELL B. ADAMS

Joseph J. O'Connell, Jr., Chairman, did not participate in the adoption of this report.

Supplemental Data

Investigation and Hearing

The Civil Aeronautics Board was notified that Alaska Airlines DC-3, NC-91006, was overdue by CAA at 2100 AST, January 20, 1949. At 0430 AST, January 21, 1949, CAA Communications notified the Civil Aeronautics Board that the wreckage had been located in the Caribou Hills. An investigation was begun immediately in accordance with the provisions of Section 702 (a) (2) of the Civil Aeronautics Act of 1938, as amended. As part of the investigation a hearing was held on February 23, 1949, in Anchorage, Alaska.

Air Carrier

Alaska Airlines, Inc., was incorporated under the laws of the territory of Alaska on November 27, 1937, under the name of Star Airlines. The name was changed to Alaska Airlines, Inc., on September 16, 1943. Executive offices are located at Anchorage, Alaska. Alaska Airlines, Inc., holder of scheduled air carrier operating certificate No. 802, operated under a certificate of public convenience and necessity issued by the CAB on June 12, 1945, pursuant to Order Serial No. 3812.

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Flight Personnel

Rector Duval Land, pilot, age 31, held a valid airman certificate with an airline transport rating. He was employed by Alaska Airlines July 27, 1948. His total flight time was 7,129 hours, the majority of which was accumulated in DC-3 type equipment. He was checked out as captain by Alaska Airlines December 16, 1948.

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The Aircraft

The Aircraft, NC-91006, was a DC-3, manufactured May 5, 1944, and was currently certificated by the CAA. It had a total flying time of 8,051 hours at the time of the accident. The engines were Pratt and Whitney 1830-65-92. Total time since overhaul was 403 hours. The propellers were Hamilton Standard hydro-matic, left propeller No. 82071 and right propeller No. FB8654.

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