

CIVIL AERONAUTICS BOARD
ACCIDENT INVESTIGATION REPORTAdopted: April 6, 1951Released: April 9, 1951

NEW TRIBES MISSION, FONSECA, COLOMBIA, SOUTH AMERICA, JUNE 9, 1950

The Accident

At approximately 1900E*, June 9, 1950, a Douglas DC-3 aircraft, N-16030, owned by the New Tribes Mission, Chico, California, crashed and burned on the northeasterly end of the Serrania de Valledupar range approximately 19 miles east-northeast of Fonseca, Colombia, South America. All 12 passengers and a crew of three were killed and the aircraft was destroyed by impact and subsequent fire. Three of the passengers were members of the New Tribes Mission's staff at Chico. The remaining were either missionaries or members of their families enroute to Venezuela.

History of the Flight

The aircraft had departed Miami, Florida, at 1045 on June 9, 1950, for Kingston, Jamaica. It arrived at Kingston at 1512 and departed at 1545 on an instrument flight plan of four hours to cruise at 9,500 feet direct to Maracaibo, Venezuela, with Barranquilla, Colombia, as an alternate. The flight plan was filed with Kingston ARTC personally by the copilot. There was sufficient fuel on board at departure from Kingston for a flight of approximately five hours and thirty minutes duration. Radio contacts were made with Kingston at 1558, 1658, and 1752. The 1752 message indicated the flight's position at 1745 as 14 degrees

* All times referred to herein are Eastern Standard and based on the 24 hour clock.

north latitude, altitude 9,500 feet, and the ETA at Maracaibo at 1915. No longitude was given. This position report to Kingston was intercepted by Balboa, Canal Zone, and relayed to Maracaibo. At 1802 Balboa sent a message to the flight advising it that the Maracaibo radio was already closed on FA (air to ground) and closing soon on FX (point to point). It was therefore suggested that Balboa be contacted to close the flight plan when the aircraft landed at Maracaibo. At 1852 the flight advised Balboa that it was "over the coast line at 5,000 feet and descending VFR." This was the last message received from the aircraft which never arrived at Maracaibo.

Investigation

In accordance with prior arrangements, after discharging its passengers and cargo at Maracaibo, the aircraft and the three staff members of the Mission were to return to their headquarters at Chico, California. When the plane had not returned to Chico, as expected, by June 12 or 13, the owners became concerned. Telegraphic communications with Maracaibo revealed that the flight had never arrived at its destination and on June 14 the Miami Air Route Traffic Control was requested to initiate a communications search. This search revealed that the flight plan filed at Kingston had never been closed and the aircraft was unreported since transmitting the last message "over the coast line at 5,000 feet and descending VFR."

What, if any, weather information was secured by the crew prior to departing Kingston is not known. The Meteorological Office there is prepared to issue reports and route forecasts on request but in this

In instance no weather information was requested and consequently none was furnished. The Kingston weather at 1600 was overcast .7, cumulus 1,000 feet, wind 17 mph from 140 degrees, visibility 25-35. Pan American Airways weather information for the course, Kingston to Maracaibo, indicated north to northeasterly surface winds from 16-20 mph could be expected between the hours of 1330 and 1630. The general weather conditions at Maracaibo during this same period were partly cloudy with scattered clouds at 4,000-4,500 feet.

On June 16, since it was then apparent the aircraft was missing, the United States Coast Guard station at Miami alerted all appropriate search and rescue activities. An intensive search from the air was made without success until about June 28, when it was discontinued. However, the New Tribes Mission continued the air search using a Stinson aircraft which they had based at Maracaibo. Their search from this point was unsuccessful and on July 5 their base of operations was moved from Maracaibo to Fonseca, Colombia. At this point it was learned from natives of an outlying Indian village that a plane had been seen on the evening of June 9 headed in a southerly direction and displaying red, white and green lights. On July 6 the Mission search plane sighted wreckage near the top of a mountain at an elevation of 4,400 feet approximately 42 miles west of the direct Kingston-Maracaibo course.

Having been informed on July 19 that the missing aircraft had been located, a Board investigator was immediately dispatched to Barranquilla, Colombia, where he arrived on the afternoon of July 20. After conferring with the American Consul and the Colombian Civil Aeronautics representative,

he proceeded to Buena Vista, Colombia, accompanied by Senor Jose E. Delgado Lindart of Aeronautica Civil of Colombia, arriving on the morning of July 23, in an aircraft supplied by the Colombian Government.

The following excerpts are taken from a written report submitted by the New Tribes Mission field representative who accompanied the Colombian Army detail to the scene of the accident:

"Leaving Fonseca with an army detail on July 7th, we traveled by jeep and burro for one day, making camp about five o'clock that day. Unable to proceed with burros, we packed our supplies on our backs and made our way over rugged mountains, very steep and dangerous, using ropes at places, and passing packs from hand to hand . . . scaling rocks, crawling under and between rocks, and jumping from rock point to rock point. Most of the way it was cutting our trail as we went, as no one had been there before. After cutting our trail, climbing and crawling, with feet, legs and hands bruised and bleeding, we reached the plane on July 11 at 3:00 p.m. * * *

"The plane hit a tree about 15 feet above the ground on the very top of the mountain, shearing off the left wing at the joint next to the engine. Ten feet further the right wing was sheared off at the joint next to the engine. Next I found the right horizontal stabilizer and elevator, and other pieces of metal, also the jug from one engine; the fin and rudder were next. Then I found the plane, crashed upside down and just a pile of ashes, with a few parts hanging outside the main fire. The main fuselage was completely burned except for 8 feet of the tail, which had been burned inside but not consumed by the fire.

"The motors were badly smashed besides being burned. It is evident that much gasoline spread over the plane and made a terrible fire. * * *

Both engines at the final crash smashed trees and were terribly broken,

besides being burned."

A conference was held with the officer commanding the Colombian Army detail that had succeeded in reaching the scene. After giving careful consideration to the conditions encountered by the detail and to the information concerning the examination of the wreckage furnished by the Mission personnel who accompanied them, it became evident that any possible additional information to be secured by again examining the wreckage would not justify the heavy expense involved or the risk of again undertaking the dangerous climb.

Analysis

Inasmuch as the Board's investigators did not personally inspect the accident scene, the analysis must be confined to an attempt to reconstruct the flight course on the basis of such facts as were available from other sources.

Had the aircraft followed a direct course from Kingston to Maracaibo, it would have intersected the Colombian coast line near the village of Tucuracas, approximately 95 miles northwest of Maracaibo, from which position on to its destination no point of the terrain exceeds 1,000 feet elevation.* However, it now appears likely that the flight intersected the coast line near the village of Rio Hacha instead, which is approximately 30 miles west of Tucuracas. To have followed a southerly heading from this position would have brought the flight to the easterly end of the Valledupar mountain range where the wrecked aircraft was found.

The last message from the flight, "over the coast line at 5,000 and descending VFR" at 1852 would indicate that the crew did not realize that they were not on course and a descent was therefore begun with full

* See attached sketch.

expectation that the flight would terminate successfully at Maracaibo. Instead the aircraft crashed on the easterly end of the mountain range 42 miles west of the Kingston-Maracaibo course. *

At 1853 the Maracaibo radio and all radio facilities at the airport were closed. That the facilities would not be available at the hour of his expected arrival was known to Pilot Wetherald since he had made several flights previously into this airport. Furthermore, he had been advised by Balboa radio at 1802, approximately one hour before the flight arrived at the coast line, of the radio situation at Maracaibo. While it is obvious that a convenient means of determining the flight's position was not available throughout the last hour of the flight, it seems probable that poor or faulty navigational procedure played an important part in this accident.

Findings

On the basis of all available evidence, the Board finds that;

1. The aircraft and crew were properly certificated for the type of operation in which they were engaged.
2. There is no evidence that the aircraft was in other than an air-worthy condition or that the aircraft experienced any mechanical trouble prior to the crash.
3. Weather conditions over the route flown were satisfactory for VFR operation.
4. The flight was advised at 1802 that Maracaibo's radio facilities would be closed down before its arrival and were closed at 1853.

* Official sunset occurred at 1832 on June 9 in this latitude, or approximately 30 minutes before the crash. The period of twilight in the area of the accident on June 9 is estimated to have been no longer than 25 minutes. It is probable, therefore, that darkness had descended by the time of the crash.

Probable Cause

The Board finds that there is not sufficient evidence upon which to make a determination of probable cause.

BY THE CIVIL AERONAUTICS BOARD:

/s/ D. W. RENTZEL

/s/ OSWALD RYAN

/s/ JOSH LEE

/s/ JOSEPH P. ADAMS

/s/ CHAN GURNEY

S U P P L E M E N T A L D A T A

Investigation

The Civil Aeronautics Board was notified July 19, 1950, that the wreckage of the missing aircraft had been located. In accordance with the provisions of Section 702(a)(2) of the Civil Aeronautics Act of 1938, as amended, an investigation was initiated. An air safety investigator was dispatched to Barranquilla, Colombia, where he arrived in the morning, July 20, 1950. A public hearing was not held in connection with this accident.

Operator

The New Tribes Mission is a non-profit, non-sectarian organization incorporated under the laws of Illinois. Its main theatre of operation is in South America where several missions are maintained in the remote areas of various countries. The mission operates several aircraft which are used exclusively for the transportation of mission personnel, including members of their families, and for the movement of supplies and equipment to their outlying bases.

Flight Personnel

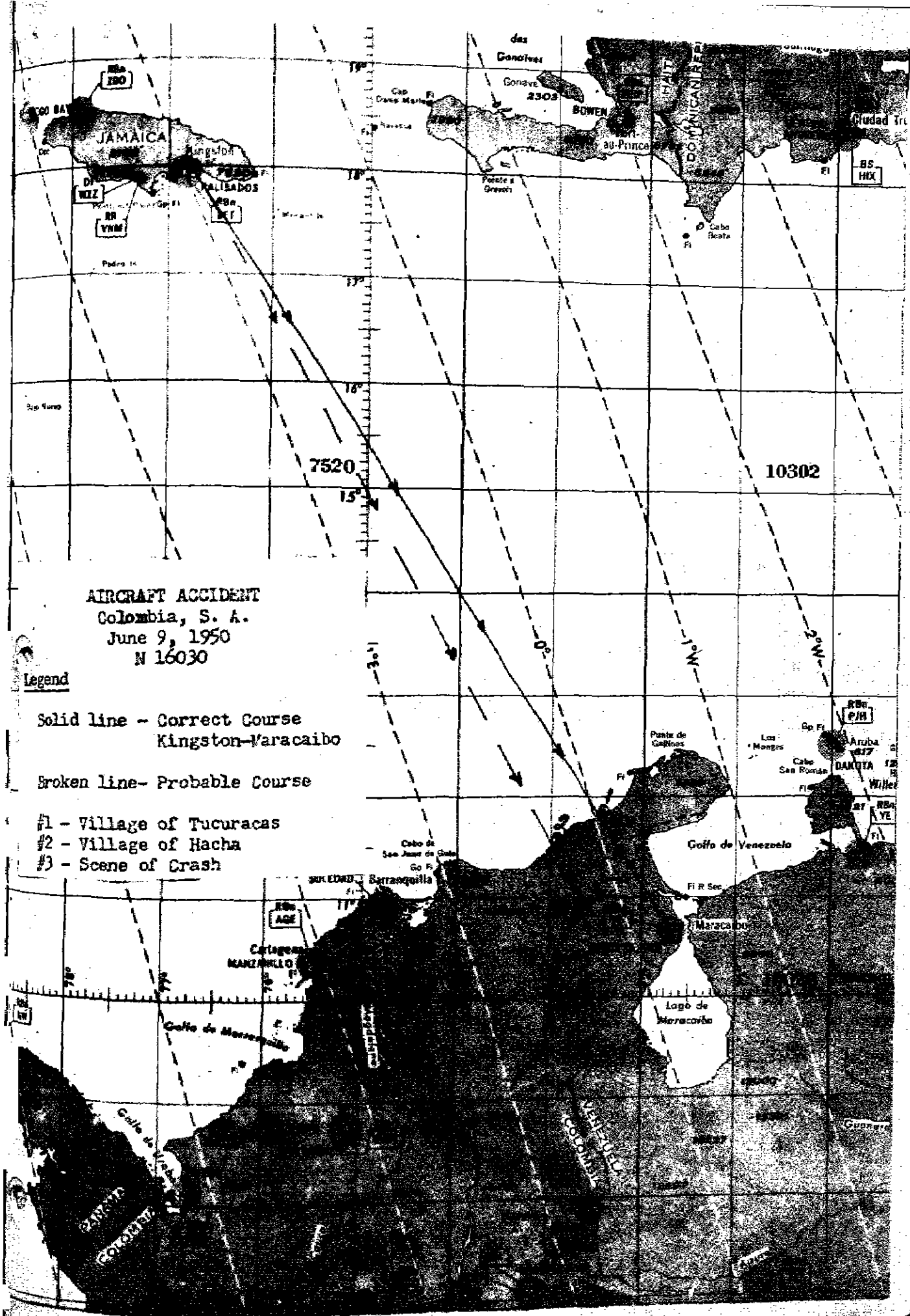
The crew consisted of pilots William P. Wetherald, David P. Kimbell and Stewardess Hazel Kimbell. Pilot Wetherald, reported as in charge of the flight, held pilot certificate #1148566 with private, single and multiengine land ratings issued May 31, 1941. The records of the Civil

Aeronautics Administration indicate a total of approximately 205 hours at the time his private certificate was issued. However, the owners of the aircraft estimated his total flight time as approximately 2,500 hours, of which roughly 400 was night flying time. They further indicate that the flight under discussion was one of seven he had made for the New Eribos Mission into South America.

The copilot, David H. Kimbell, held pilot certificate 760799 with commercial, single and multi-engine land ratings issued September 25, 1947, and instrument rating issued December 19, 1949. The pilot's certificate and ratings were issued on the basis of his military competency. His application for instrument rating dated December 19, 1949, showed a total of 3,576.9 hours as pilot, 550 of which were reported as instrument.

Aircraft

The log books of the aircraft involved were not available for examination. However, information furnished by the owners indicates the aircraft to have been manufactured on August 29, 1936, and purchased from American Airlines, Tulsa, Oklahoma, with a total time of 36,534 hours. A 100-hour inspection was accomplished a few days prior to the accident at which time all Airworthiness Directives as of May 2, 1949, had been complied with. The aircraft was equipped with Wright Model 202 Engines and Hamilton Standard propellers.



AIRCRAFT ACCIDENT
 Colombia, S. A.
 June 9, 1950
 N 16030

Legend

Solid line - Correct Course
 Kingston-Varacaibo

Broken line- Probable Course

- #1 - Village of Tucuracas
- #2 - Village of Hacha
- #3 - Scene of Crash