

File No. 487-42

Docket No. SA-63

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REPORT OF THE CIVIL AERONAUTICS BOARD

On the investigation of an accident involving aircraft of United States registry NC 16064 which occurred at La Guardia Field, Jackson Heights, New York, on April 11, 1942.

I

CONDUCT OF INVESTIGATION

An accident involving aircraft NC 16064 occurred at La Guardia Field, Jackson Heights, New York, on April 11, 1942, about 5:37, a.m. (EST). The aircraft was being operated in scheduled air carrier service between Chicago, Illinois, and New York, New York, as Trip 12 of United Air Lines Transport Corporation (hereinafter referred to as "United") at the time. The accident resulted in serious injuries to the first officer and stewardess and minor injuries to the captain. The six passengers escaped injury. The aircraft received major damage to the right wing tip; also damage from immersion and salvage operations.

The Civil Aeronautics Board (hereinafter referred to as the "Board") immediately initiated an investigation of the accident. In connection with this investigation, a public hearing was held in New York, New York on April 16, 1942. G. Nathan Calkins, an attorney for the Board, presided as examiner, and the following personnel of the Board participated at the hearing: Jerome Lederer, Director, Safety Bureau; W. K. Andrews, Chief, Investigation Section; A. P. Bourdon, Senior Air Safety Investigator; Paul A. Gareau, Air Safety Specialist (Meteorology); and C. Z. German, Assistant General Counsel, Safety Legal Division.

Upon the basis of all evidence accumulated in the investigation and at the hearing, the Board now makes its report in accordance with provisions of the Civil Aeronautics Act of 1938, as amended.

II

SUMMARY AND ANALYSIS OF EVIDENCE

United was operating at the time of the accident as an air carrier under certificates of public convenience and necessity and air carrier operating certificates issued pursuant to the Civil Aeronautics Act of 1938,

as amended, which authorized it to engage in air carrier transportation with respect to persons, property, and mail on various routes, including Route No. 1 between the co-terminal points New York, New York, and Newark, New Jersey, and the terminal point Oakland, California.

On the flight in question, the crew consisted of Captain Douglas Wilson, First Officer Stuart W. Butterfield, and Stewardess Josephine Dargis.

Captain Wilson, age 35, who had a total of approximately 8300 hours of flight time, held an airline transport certificate and had been employed by United Since May 1933. Prior to the accident he had logged about 4000 hours in Douglas aircraft. His last physical examination, required by the Civil Air Regulations, taken March 27, 1942, showed him to be in satisfactory physical condition. Company records indicate that he was a well-qualified and proficient pilot. On his last flight check prior to the accident, also given on March 27, 1942, he received a satisfactory grade.

First Officer Stuart W. Butterfield, age 32, had a total flying time of approximately 1656 hours. He was employed by United on October 21, 1940. At the time of the accident he held a commercial pilot certificate with an instrument rating and had logged approximately 1166 hours as co-pilot in DC-2 and DC-3 airplanes. His last physical examination, required by the Civil Air Regulations, taken on March 25, 1942, showed him to be in satisfactory condition.

Aircraft NC 16064, a Douglas, Model DC-3-A, powered with two Pratt & Whitney Wasp S1C3G engines, was manufactured by the Douglas Aircraft Company, Inc., of Santa Monica, California, in December 1936, and purchased by United on January 11, 1937. At the time of the accident it had been flown a total of approximately 12,695 hours, with replacement of engines and parts from

time to time. The engines were equipped with constant speed, hydromatic, full-feathering propellers. This model aircraft and its equipment had been approved by the Civil Aeronautics Administration for air carrier operation over routes flown by United with 21 passengers and a crew of four. The airplane and its equipment had received the overhauls, periodic inspections, and checks which are provided for in company practice and approved by the Civil Aeronautics Administration. At the time of departure of Trip 12 from Cleveland, Ohio, the gross weight of the airplane was 24,837 lbs. which was within the authorized limits, and distributed in such a manner that the c.g. was within allowable limits. The gross weight at the time the plane reached La Guardia Airport was approximately 23,500 lbs.

History of the Flight

United's Trip 12 of April 10, 1942, originated at San Francisco, California, with New York, New York, as its destination. Intermediate stops were scheduled for Oakland and Sacramento, California; Reno, Nevada; Salt Lake City, Utah; Denver, Colorado; Omaha, Nebraska; Chicago, Illinois; and Cleveland, Ohio. It was scheduled to depart from Cleveland at 2:55 a.m. (EWT) April 11, but departure was delayed until 3:38 a.m., awaiting the arrival and loading of air express shipments.

The flight to Cleveland was reported to have been routine. Some doubt was felt at Cleveland as to weather minimums enroute, but after the cargo delay at this point, further concern was removed because of improved conditions and the trip proceeded to La Guardia Field with weather at New York reported as 600 feet and 8 miles with conditions still improving. After leaving Cleveland, the flight was reported as on top at 11,000 feet to Sunbury, Pennsylvania, descending to 9,000 feet at Allentown, Pennsylvania. At a point between Allentown and Metuchen, New Jersey, a normal descent was started

through the overcast and contact was established at 2,000 feet, over Coney Island, with visibility unlimited. During the descent through the overcast, according to Captain Wilson, a slight amount of ice was accumulated on the windshield, but as the propeller de-icers and airspeed pitot heaters had been placed in operation just prior to entering the overcast, no concern was felt and the icing condition was not considered to be of enough consequence to require use of the wing de-icers. After passing Coney Island the descent was continued toward the La Guardia range station and the ice which had accumulated on the windshield melted off at an altitude of about 1000 feet. Upon arriving over the La Guardia range station, the captain was instructed by the tower operator at La Guardia Field to use the No. 4 runway. After lining up with this runway, a normal power glide was made and the propeller controls were moved to the low-pitch position. At this point the first officer was alert for the captain's order for flaps down but the order was not given and flaps were not used. At a point approximately 400 feet beyond the southern boundary of the field, while at an altitude reported to have been between 6 and 10 feet, the right wing suddenly dropped and struck the runway without the wheels touching. The captain applied power to both engines as the wing started to drop, and testified that he felt the wing tip scrape the runway. The contact of the wing with the runway, in conjunction with the captain's manipulation of the controls and the sudden application of power, caused the aircraft to react upward and to the left. The airplane, still in a stalled condition, was then headed to the left about 25 degrees off course. It made a second contact approximately 800 feet farther down the field with the left wing low and the left wheel off of the runway. The aircraft was then headed north-northwest towards the bulkhead, which is the west boundary of the field

at this point, and beyond which is Bowery Bay. The pilot, knowing that he had only about 600 feet of the field remaining in this direction, decided to take off. Wheel marks on the field indicated that the airplane was partially airborne from this point to the bulkhead. Difficulty was experienced in controlling the aircraft because of the damaged wing and the captain closed the throttles just as the plane reached the bulkhead. The ship continued over the bulkhead and crashed in the water approximately 200 yards beyond. The aircraft came to rest with the nose submerged and the cabin clear of the water. The crew and passengers were removed in a few minutes by Pan American Airways' personnel and taken ashore in a company boat. Shortly after the occupants were removed, the aircraft sank leaving only the tail and right wing tip protruding from the water.

Inspection of the wreckage revealed that the fuselage, from the pilot's compartment forward, was badly damaged by the impact with the water. The right wing tip and aileron were bent upward approximately 10 to 15 degrees at the point of the wing tip attachment. Examination of the control system disclosed that all controls were connected and still operative. The flaps were found in the "up" position. Two employees of Pan American Airways testified that they found thin slushy ice on the wings and empennage at the time they removed the passengers and crew from the aircraft.

Conduct of the Flight

There appears to be no question that the flight was properly dispatched from Chicago and from Cleveland. The evidence indicates that it was properly conducted from the moment of departure to the time of arrival over La Guardia Field.

The United States Weather Bureau and United's forecasts proved to be accurate within reasonable limits.

Captain Wilson and First Officer Butterfield agreed that the engines, propellers, airplane controls and radio equipment were functioning normally during the entire flight.

The fact that there was an appreciable amount of ice still on the aircraft after landing was substantiated by witnesses. Two westbound pilots landed at Cleveland shortly before the arrival of Trip 12. They told Captain Wilson that they had encountered icing conditions shortly after leaving New York. Testimony revealed that the pitot heater and propeller de-icers were turned on prior to entering the overcast and remained on until the plane broke out of the overcast at approximately 2000 feet. The captain testified that a small amount of ice had collected on the windshield, but he considered conditions did not require the use of wing de-icers. The ice on the windshield soon melted and no further concern was felt by the captain or first officer. Had they used their flashlight the amount of ice on the wings might have been ascertained, and had they circled the airport after breaking through the overcast the ice would have melted.

Although it was the policy of United to use flaps when landing, testimony revealed that this was not done. First Officer Butterfield stated that he was prepared to lower the flaps pending instructions from the pilot, but the order was not given. The captain gave no reason for his failure to make use of the flaps.

The first officer further stated that it was customary to call out the indicated air speeds during the landing below 120 m.p.h., but that Captain Wilson had requested him not to do so. However, his instructions were to observe the air speed and report to the captain if there was anything unusual. Captain Wilson testified that he had requested several first officers with whom he had flown not to call out the air speed readings as he preferred to

check them himself. This practice does not conform with United's procedure.

The evidence indicates that Captain Wilson did not exercise sound judgment in failing to follow procedure established by his company.

III

CONCLUSIONS

Findings

Upon the basis of all the evidence available to the Board at this time, we find that the facts relating to the accident involving aircraft of United States registry NC 16064, which occurred at La Guardia Field, Jackson Heights, New York, on April 11, 1942, are as follows:

1. The accident occurred at approximately 5:37 a.m. (EWT) on April 11, 1942, to United's Trip 12 of April 10, and resulted in serious injuries to two members of the crew, minor injuries to a third member, no injuries to the six passengers, and major damage to aircraft NC 16064.

2. At the time of the accident, United held a currently effective certificate of public convenience and necessity and an air carrier operating certificate authorizing it to conduct the flight.

3. Captain Wilson and First Officer Butterfield were physically qualified and held proper certificates of competency to operate as air carrier pilots over a route between Chicago, Illinois, and New York, New York.

4. Aircraft NC 16064 was currently certificated as airworthy at the time of the accident.

5. Trip 12 was cleared in accordance with proper procedure from Chicago, Illinois, and Cleveland, Ohio, and proceeded normally until New York, New York.

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6. At the time of departure from Cleveland, and at the time of the accident, the gross weight of the airplane did not exceed the permissible gross weight and the aircraft was loaded properly with reference to the location of the center of gravity.

7. At the time of the accident, weather conditions at La Guardia Field were above the approved minimums.

8. Captain Wilson was flying the aircraft at the time of the accident.

9. The landing was made without flaps, which is contrary to United's procedure, because Captain Wilson failed to order the first officer to lower them.

10. Captain Wilson made no attempt to ascertain the ice accumulation on the aircraft.

PROBABLE CAUSE: Loss of control due to a stall while landing.

CONTRIBUTING FACTORS: 1. Failure of the captain to make use of the flaps during the latter stages of landing approach.

2. Presence of ice on the wings.

APPROVED:

/s/ L. Welch Pogue
L. Welch Pogue

/s/ Harllee Branch
Harllee Branch

/s/ Oswald Ryan
Oswald Ryan

/s/ Edward Warner
Edward Warner

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UNITED AIR LINES ACCIDENT

TRIP 12, APRIL 11, 42.

FIELD ELEVATION 12 FEET.

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