Adopted: July 31, 1942 File No. 6197-41

REPORT OF THE CIVIL AERONAUTICS BOARD of the Investigation of an Accident Involving Aircraft in Air Carrier Operation

An accident which resulted in minor damage to a model DC-3 Douglas airplane, NC 28343, owned and operated by Delta Air Corporation, occurred at about 7:27 p.m. (CST) on December 22, 1941, at the Municipal Airport, Birmingham, Alabama. No injury was sustained by any of the twelve passengers or the crew of three. The crew consisted of Captain Tippen Schier, First Officer William E. Nichols, both of whom were properly certificated and appropriately rated, and Stewardess Mary Smith.

The flight, designated by Delta as Trip No. 3, originated at Atlanta, Georgia, with Fort Worth. Texas, as its destination. Intermediate stops were scheduled at Birmingham and other points. Except for poor radio communication and air which was turbulent but not excessively so, the flight proceeded without incident until radio contact was established with the control tower at Birmingham and landing instructions were received. The control tower operator stated that he advised the trip that the wind was E to SE 25 m.p.h. variable and gusty. However, the first officer stated that he understood the report as merely SE 25 m.p.h. variable, and transmitted that information to the captain. The captain subsequently stated that radio reception was poor at the time they were cleared to the Birmingham tower. Captain Schier, flying contact, made his approach for a landing toward the southeast. This involved passing over a ridge a short distance northwest of the airport boundary. In accordance with the usual practice for landings toward the southeast, Captain Schier followed a depression in the slope of this ridge in order to secure improved terrain clearance. The approach proceeded in the normal manner with First Officer Nichols carrying out the captain's instructions to lower the landing gear and then the flaps. Full flaps were used. A moment after they were fully extended, the plane, flying between 95 and 110 m.p.h. through severe turbulence, was deflected downward. Captain Schier applied full throttle to both engines, called for gear up and got it immediately. The captain, pulling the plane up as much as possible to get over the trees in front of him, brushed through their tops and continued over the airport. First Officer Nichols, after notifying the control tower that Trip 3 would make another approach, was advised by the control tower operator to make an eastward landing on the runway. The second approach was made toward the east and the landing was completed without further incident. Inspection of the plane disclosed damage which caused cancellation of the unfinished portion of the flight.

Investigation disclosed that the flight was cleared and conducted in accordance with company operating policies. Weather conditions were not below the minimum limits at any time during the flight. Birmingham weather, at the time of the accident, was reported by the U.S. Weather Bureau as: Ceiling 1900 feet; visibility 3 miles; wind southeast 25 m.p.n.; light rain. Extreme

turbulence with a shifting wind was encountered throughout the first landing approach. This condition undoubtedly would have been expected by the Captam had not poor radio reception prevented the First Officer from understanding all of the weather report transmitted to him by the Control Tower Operator. Investigation failed to reveal any malfunctioning of the aircraft or any of its components.

PROBABLE CAUSE: Failure of the captain to maintain adequate terrain clearance during landing approach under extremely turbulent au conditions.

- CONTRIBUTING FACTORS: 1. The use of fully extended flaps in turbulent air.
 - 2. Poor radio reception.

BY THE BOARD

/s/ Darwin Charles Brown
Secretary