

October 28, 1936

DEPARTMENT OF COMMERCE  
BUREAU OF AIR COMMERCE  
Washington

STATEMENT OF PROBABLE CAUSE CONCERNING AN ACCIDENT WHICH  
OCCURRED TO AN AIRCRAFT OF CENTRAL AIRLINES, INCORPORATED,  
AT PITTSBURGH, PENNSYLVANIA, ON NOVEMBER 16, 1935

To the Secretary of Commerce.

On November 16, 1935, at approximately 1 20 a.m. at Allegheny Airport, Pittsburgh, Pennsylvania, an airplane of United States registry, piloted by a licensed pilot, while being operated in scheduled flight carrying mail, passengers and express, was forced to land immediately following take-off, with no injuries to persons but major damage to the aircraft as a result.

The airplane, a Stinson, model A, bore Federal license number NC-15107 and was being operated by Central Airlines, Incorporated, of Pittsburgh, Pennsylvania. The pilot, James A. Carmichael, held a Federal transport pilot's license and a scheduled air transport rating. The copilot was Edward H. Gerber who held a Federal transport pilot's license. The one passenger was Tracy Baker of Chicago, Illinois.

The airplane had made a scheduled landing at Pittsburgh, at which time it was serviced with 53 gallons of fuel. On the take-off, at an altitude of approximately 50 feet, the center engine failed, followed almost immediately by failure of both outboard engines. The pilot made a landing straight ahead on an unfinished part of the east-west runway with wheels retracted. This portion of the runway was covered with a heavy growth of weeds which were wet from recent rains. The airplane slid along on these weeds and went off the end of the runway, hitting nose down at the bottom of a ledge.

Upon investigation it was found that the entire gasoline system of the airplane, from the selector valve to the carburetors, was full of water. The left main tank contained about six gallons of water, while the right main tank, on which the engines were running at the time of failure, contained over one gallon. Further investigation disclosed that the service truck tank from which the airplane was serviced contained water and the gasoline storage tank from which the truck was filled was found to contain over 200 gallons of water. The ground on one side of the tank had been excavated and was partially filled with rain water. A brass union on a pipe line running through this excavation had become partially unseated, possibly due to a movement of the tank, and allowed rain water to seep into the fuel storage system.

A check on this tank four days previously had revealed no water and it appears that fuel taken from the service truck tank at 9 30 p.m. on the night of the accident was free of water. However, shortly before the accident it was refilled with fuel from the storage tank into which rain water had seeped and this was subsequently pumped into the fuel tanks of the aircraft without the presence of the water being detected.

It is the opinion of the Bureau of Air Commerce that the probable cause of this accident was an abnormal amount of water in the fuel tanks of the aircraft due to accidental entry of water into an underground fuel storage tank as a result of a strained fitting.

Respectfully submitted,

Eugene L. Ruml, Director of Air Commerce