DEPARTMENT OF COMMERCE BUREAU OF AIR CUILLETCE WASHINGTON

Statement of probable cause concerning an accident which occurred to a plane of Pennsylvania Airlines and Transport Company on June 12, 1935, in the vicinity of Harpers' Ferry Virginia.

To the Director of Air Commerce:

On June 12, 1935 at approximately 5:35 p. m. near Harper's Ferry, Virginia an airplane of United States registry, piloted by licensed airmen, while being operated in scheduled flight carrying passengers and express, encountered an unusual weather condition which resulted in serious injuries to three passengers.

The airplane, a Boeing, model 245, bore Department of Commerce license number NC-13356 and was being operated between Washington, D. C. and Milwaukee, Wisconzin by Pennsylvania Airlines and Transport Company, The pilot, Murl Estes, held a Department of Commerce transport pilot's license and a scheduled air transport rating The co-pilot, N. J. Unterweiler, held a Department of Commerce transport pilot's license.

The passengers receiving serious injuries were: H. J. Byrd, George P. Kimmel and L. Law. The other passengers were: R. B. Swope, W. S. Stern and T. N. Stern.

The flight, known as Trip 7-A, departed from Washington at 5:13 p.m. At 5:31 p.m. the pilot reported his position as Harper's Ferry with high overcast, lower broken clouds, ceiling estimated 5,000 feet, visibility 5 miles with light rain and temperature of 72°.

About five miles NW of Harper's Ferry and flying at an altitude of 2300 feet, the pilot states that the rain increased to moderate but there was no indication of thunderstorms nor was the radio effected by static. After flying through this in smooth air for approximately two or three minutes and without any warning whatso-over, the plane encountered a very severe bump and almost immediately a second bump more severe than the first. Immediately after experiencing the second bump, the air became smooth again and about two minutes later broken clouds and sunshine were encountered.

after experiencing the second bump, the co-pilot made a check of the passengers and on acquainting the pilot of the injuries received by some of them, the pilot made a wide circle and returned to Washington for the benefit of medical attention advising Washington by radio of the situation. No rough air was encountered on the return trip to Washington.

From the pilot's description, each of these bumps caused the plane to drop suddenly and sharply but at no time did the plane fail to respond to the controls.

Nothing was found in the investigation which might have warned the pilot of conditions as encountered.

It is the opinion of the Accident Board that the probable cause of this accident was an air turbulence of unusual violence which could not have been forseen and which, under existing weather conditions, could not have been predicted.

ACCIDENT BOARD