

A-6927

FOR RELEASE: A.M. OF JAN 28 1969

AIRCRAFT ACCIDENT REPORT

UNITED AIR LINES, INC.

BOEING 727 QC, N7425U

CHICAGO O'HARE INTERNATIONAL

AIRPORT, ILLINOIS

MARCH 21, 1968

NATIONAL TRANSPORTATION SAFETY BOARD

DEPARTMENT OF TRANSPORTATION

WASHINGTON D.C. 20591

3. Recommendations and Corrective Action

As a result of this accident, the Safety Board, in a letter to the Administrator of the FAA dated May 14, 1968, recommended that the FAA review the crew training curriculum and the operating procedures relative to (1) aircraft takeoff handling characteristics with various flap settings, and (2) the operations from a systems standpoint of the intermittent warning horn in the takeoff regime and action expected of the crew when the horn is heard during the takeoff roll. Specifically, it was recommended that the Boeing 727 Operations Manual be revised to require that the takeoff be aborted should the intermittent warning horn sound during the takeoff roll and that the reason for the horn sounding be determined and corrected before another takeoff is attempted.

The Administrator, in his reply of June 6, 1968, stated that each air carrier pilot receives ground instruction, as well as being checked by FAA inspectors, relative to the operation of the takeoff warning system, including aborted takeoffs involving activation of that system. The Administrator further stated that each air carrier's manual contains instructions to the effect that, if a malfunction (e.g., activation of the warning horn) occurs prior to V_1 , the takeoff should be aborted. The Administrator therefore concluded that "successful completion of an approved B-727 training program adequately prepares a pilot for operation of that

aircraft, provided he adheres to the operating procedures taught in the training program and as outlined in the appropriate flight operations manual."

The Administrator also noted that, as a result of the accident, United Air Lines issued an operations alert bulletin re-emphasizing the operational aspects of the takeoff warning horn. ^{19/} The Administrator added that FAA field personnel had been requested to place particular emphasis on that same subject during training as well as pilot certification.

In its response of August 19, 1968, the Safety Board expressed the view that, while the emphasis on the takeoff warning system was gratifying, further action was required. The Board noted that the operations manuals of air carriers, although stating the reasons the horn would sound, contained no specific instructions on actions to be taken by the crew if the warning horn should sound during takeoff rolls. It was pointed out that UAL personnel were apparently not given explicit instructions to abort the takeoff if the horn sounds prior to reaching V_1 , but rather that the crews had some prerogative in attempting to correct the cause thereof rather than to abort the

^{19/} The referenced bulletin was a teletype message sent to UAL flight domiciles on May 2, 1968, prescribing the following procedures when the takeoff warning horn sounds:

"Normally, this warning should occur very early in the takeoff roll when the takeoff run should obviously be discontinued and the condition corrected prior to another attempt. Should the warning occur near V_1 when you are committed to fly, then a higher rotation speed is obviously desirable."

takeoff at once. The letter also cited the admission of other airline crews that, during takeoff rolls, they had been able to locate and correct the condition which caused the horn to sound.

The Safety Board's letter also expressed the belief that the procedure set forth in the UAL operations alert should be required of all Boeing 727 operators. It was therefore recommended "that specific instructions be issued to all Boeing 727 operators which require that takeoffs be aborted if the intermittent warning horn sounds during takeoff rolls before reaching V_1 ."

By letter dated September 10, 1968, the Acting Administrator responded, in pertinent part, as follows:

"We have requested our field offices to review the procedures prescribed in the air carrier's manuals to assure that takeoffs will be aborted whenever the takeoff warning horn sounds prior to reaching V_1 , unless there are other overriding factors. If such instructions are determined to be inadequate or nonexistent, the air carrier will be requested to update their Flight Operations Manuals or issue an alert bulletin." ^{20/}

^{20/} Copies of the 4 letters discussed above are contained in the Public Docket of Recommendations, which is maintained in Safety Board's offices in Washington, D. C.

The Safety Board believes that the corrective measures described in the foregoing letter should, when effectuated, prevent the recurrence of similar accidents in the future.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

/s/ JOSEPH J. O'CONNELL, JR.
Chairman

/s/ OSCAR M. LAUREL
Member

/s/ JOHN H. REED
Member

/s/ LOUIS M. THAYER
Member

/s/ FRANCIS H. McADAMS
Member