NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: February 3, 1975

Forwarded to:

Honorable Alexander P. Butterfield Administrator Federal Aviation Administration Washington, D. C. 20591

SAFETY RECOMMENDATION(S) A-75-6

The National Transportation Safety Board is pleased to acknowledge your promulgation of a regulation which will require that a ground proximity warning system (GPWS) be installed on large turbine-powered aircraft operating under Parts 121, 123, and 135 by December 1, 1975. We also wish to express our appreciation for the opportunity extended to our staff to attend the briefing and review of the draft copy of the proposed Advisory Circular No. 25-6, which described in more detail the required performance of the GPWS.

We noted in this review that the "FAA is studying the necessity for a glidepath deviation indication and, when appropriate, may propose a rule change." Although we recognize that this mode of operation may be beyond the scope of NPRM 74-32, and the subsequent adopted rule (Amendment 121.360), the Safety Board's statistics indicate that the required addition of this feature should be given your earliest consideration. More than 50 percent of the major air carrier accidents within the past 5 years have occurred during the approach segment. In many of these accidents, significant deviation below the electronic glideslope was evident. We believe that a number of these accidents could have been avoided if a glidepath deviation alarm had been available to prompt pilot action.

Although we believe that the GPWS as required by the new rule 121.360 will be effective in preventing many of those types of accidents involving inadvertent contact with the ground, we are concerned about the limitations of the system during the final approach segment of flight.

Augmentation of the system with a glidepath deviation alarm would certainly expand its effectiveness during this critical phase.

Therefore, the National Transportation Safety Board recommends that:

The FAA amend 14 CFR 121.360 to require the installation, on or before December 1, 1975, of a glidepath deviation alarm providing an audible and visual signal when significant deviations below the electronic glidepath are encountered after initial glidepath capture. This system should be required on large turbine-powered aircraft.

REED, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendation.

John H. Reed Chairman

NATIONAL TRANSPORTATION SAFETY BOARD DEPARTMENT OF TRANSPORTATION Washington, D.C. 20591

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