## UNITED STATES OF AMERICA NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: November 17, 1971

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD at its office in Washington, D. C. on the 3rd day of November 1971.

FORWARDED TO:	
Honorable John H. Shaffer Administrator	. ,
Federal Aviation Administration	;
Washington, D. C. 20591	

## SAFETY RECOMMENDATION A-71-60 thru 62

On October 24, 1971, an aircraft crashed while executing a VOR instrument approach to the Bethlehem-Easton Airport, Allentown, Pennslyvania. This accident resulted in four fatalities and four serious injuries. Preliminary investigation of the accident and a review of the VOR approach procedures for the Allentown area indicate that the VOR approach plates may have been a factor in this accident.

The aircraft crashed 10 miles north of the airport and 5 miles north of the Allentown VOR at an altitude of 1,600 feet mean sea level (m.s.l.). In an attempt to ascertain why the aircraft was at that altitude, at that point, the VOR approach plates were reviewed closely. It was noted that 1,600 feet m.s.l. is the low station altitude for the Allentown VOR approach to the Queen City Municipal Airport, utilizing the East Texas VOR. The VOR approach to the Bethlehem-Easton Airport, using the Allentown VOR, has a low station altitude of 2,200 feet m.s.l.

Since both instrument approach plates are entitled "VOR-1" and have the word Allentown twice in proximity thereto, it is entirely possible that haste, poor lighting, or other factors might have caused the pilots to select the wrong approach plate for the approach they were conducting. Thus, when the aircraft was cleared for the approach and erroneously descended to 1,600 feet m.s.l., there was inadequate terrain clearance, and the ensuing accident was inevitable.

In light of the foregoing, it is the opinion of the National Transportation Safety Board that some method must be instituted to preclude, insofar as possible, selection of the improper instrument approach plate. To this end, the Board recommends that your Administration:

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1. Require some conspicuous and distinctive markings to be affixed to the Allentown approach plates to enable pilots to identify the proper plate quickly and positively. The words "CAUTION--VERIFY PROPER APPROACH" or similar phraseology may be appropriate.

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2. Promptly review all instrument approach plates to determine instances of potential approach plate misidentifications in other locations, and if found, institute the same remedial action.

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3. As an interim measure, notify the public of this potential hazard by whatever means you deem most expeditious and effective.

Members of our Bureau of Aviation Safety will be available for consultation in this matter if desired.

This recommendation will be released to the public on the issue date shown above. No public dissemination of the contents of this document should be made prior to that date.

Reed, Chairman; Laurel, McAdams, Thayer, and Burgess, Members, concurred in the above recommendations.

John H. Reed Chairman