

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

FOR RELEASE: 6:30 P.M., E.D.S.T., SEPTEMBER 4, 1975

ISSUED: September 4, 1975

Forwarded to:
Honorable James E. Dow
Acting Administrator
Federal Aviation Administration
Washington, D. C. 20591

SAFETY RECOMMENDATION(S)

A-75-74 thru -77

On December 1, 1974, Trans World Airlines Flight 514, a B-727-231, crashed at Berryville, Virginia. During the National Transportation Safety Board's public hearing into the accident, testimony was heard regarding cartographic specifications and procedures used by the Jeppesen Company and the National Ocean Survey (NOS) to prepare instrument approach charts.

The Safety Board determined that the Jeppesen approach chart used by the crew of TWA 514 and the NOS approach chart used by the FAA controllers handling the flight were properly constructed; both met the requirements outlined in FAA Form 8260.5.

However, differences do exist between the Jeppesen charts and the NOS charts. The two charts vary considerably in areas where FAA Form 8260.5 does not specify exact format. The specific areas in which the Jeppesen charts and the NOS charts differ are (1) depiction of the minimum sector altitudes, (2) size and structure of the profile view, (3) criteria for the depiction of obstacles on the plan view, (4) color of inks, (5) size of type, and (6) portrayal of navigational facilities.

The Jeppesen Company produces most of the instrument approach charts used by the civil aviation community. The company receives a wide range of comments and suggested changes in these charts from pilots, carriers, and other segments of the industry, and is constantly revising its published charts to respond to the needs and requirements of its users.

The official United States Government specifications for cartographic presentation are contained in the Interagency Air Cartographic Committee (IACC) Manual No. 4, Flight Information Publication, Low-Altitude, Instrument Approach Procedures. The National Ocean Survey is governed by the cartographic specifications of the IACC Manual. This interagency committee is made up of representatives of the Federal Aviation Administration, the Department of Commerce, and the Department of Defense.

The Safety Board believes that the latitude allowed in preparation of the two published charts creates an undesirable degree of dissimilarity. While these variations do not necessarily create a hazard, the application of uniform criteria and uniform cartographic depictions would eliminate any areas of possible misinterpretation. In order to insure that the best cartographic techniques are identified and employed, we believe that both types of charts should be analyzed to determine the most effective specifications for instrument approach charts. Once identified, these specifications should provide a basis for revision of IACC Manual No. 4.

In order to insure consistency between the preparation of FAA Form 8260.5 and the revised IACC specifications, the Safety Board further believes that reference to these revised specifications should be required of FAA personnel engaged in the preparation of FAA Form 8260.5.

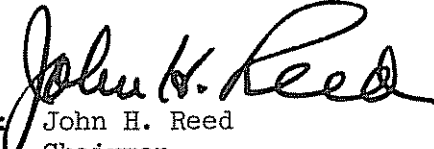
Accordingly, the National Transportation Safety Board recommends that the Federal Aviation Administration:

1. In concert with the two other IACC Members (Department of Commerce and Department of Defense) and the Jeppesen Company, conduct a study of the cartographic techniques and specifications used throughout the aviation industry for approach charts for the purpose of identifying those techniques and specifications that best lend themselves to uniformity and standardization.
2. Based on the above study, initiate steps to revise the IACC manual to include those techniques and specifications that best lend themselves to uniformity and standardization and to which there is unanimous agreement by the parties engaged in the study.
3. Require that the IACC manual be used as the minimum standards for cartographic presentation of specified data on all instrument approach charts used in U. S. civil and military aviation.
4. Require that the revised IACC manual be used as a mandatory reference by FAA personnel whenever a new instrument approach procedure is developed or whenever an existing procedure is modified.

Honorable James E. Dow

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McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendation. REED, Chairman, did not participate.


By: John H. Reed
Chairman

THESE RECOMMENDATIONS 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.