

206-1254

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: March 30, 1981

Forwarded to:

Mr. Walter Chappas
Chairman
Inter-Agency Air Cartographic
Committee
National Oceanic and Atmospheric
Administration
6001 Executive Blvd
Rockville, Maryland 20852

SAFETY RECOMMENDATION(S)

A-81-34

On October 24, 1980, a Beechcraft BE-18S, N65V, crashed and burned after striking a television antenna tower while executing a missed approach from the Gainesville, Florida, Regional Airport. All three occupants of the aircraft were killed. The pilot of the aircraft had been conducting an instrument landing system (ILS) approach in poor weather conditions just before the accident occurred. When the pilot reported that he had missed the approach, the air traffic controller advised him to execute the published missed approach procedure. Shortly thereafter, the pilot reported that N65V had lost an engine. The aircraft proceeded straight out on a near-centerline course (280° magnetic) from the end of runway 28, the ILS runway, until colliding with the antenna tower, which was approximately 5.2 nautical miles from the airport.

On the National Ocean Survey (NOS) approach chart for the "ILS RWY 28" procedure for the Gainesville Regional Airport, the missed approach track is represented by a straight arrow which extends directly toward the antenna tower that was struck. The written missed approach procedure on the chart provides for a "climb to 600 then climbing left turn to 2000 direct to GNV VORTAC and hold." The Inter-Agency Air Cartographic Committee (IACC) manual "Low Altitude Instrument Approach Procedures" (IACC No. 4) states in Chapter III, paragraph 9.c.(14e) that "when a turn is required, the missed approach track shall be curved to indicate the proper direction." There is no specification that distinguishes at what point in the missed approach a turn should be commenced and where the track symbol should be curved. Therefore, the only apparent interpretation of this specification is the literal one which requires the curved arrow. This view is reinforced by an introductory remark in the IACC No. 4 which states, in part, "these specifications shall be complied with without deviation until such time as they are amended by formal IACC action."

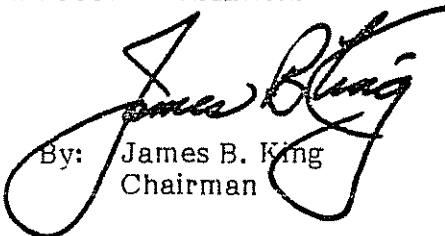
Further investigation has revealed that nearly all NOS approach charts depict the missed approach track with a straight arrow when the procedure specifies a turn at some point after a certain altitude is reached. We compared this practice with the depiction of the missed approach track as portrayed on the Jeppesen Chart for the same

ILS approach to Gainesville. The Jeppesen Chart shows an initial "straight-ahead" arrow which curves to the left direct to the "GNV VOR." Although the Jeppesen Company is not required to follow the specifications in IACC No. 4, we believe, nevertheless, that that company's method of depicting the missed approach track best meets the intent of paragraph 9.c.(14e) and offers a clearer, more easily interpreted graphic presentation of the lateral aspects of the missed approach procedure.

Although it cannot be conclusively established that the pilot failed to turn left because of the graphic depiction on the NOS Chart, we believe that the Gainesville Regional Airport ILS RWY 28 missed approach track, as well as all appropriate NOS missed approach tracks, should be amended to show the arrow curved in the direction of the required turn. We realize that such action on all charts would be a monumental task if undertaken at the same time. Therefore, the National Transportation Safety Board recommends that the Inter-Agency Air Cartographic Committee:

Take steps to amend all appropriate NOS approach charts to depict the missed approach track with a curved arrow in the direction of the required turn, regardless of where the turn begins. These changes should be accomplished along with routine amendments resulting from periodic reviews. (Class III, Longer Term Action) (A-81-34)

KING, Chairman, DRIVER, Vice Chairman, and McADAMS, GOLDMAN, and BURSLEY, Members, concurred in this recommendation.


By: James B. King
Chairman