

LOG 1147

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: March 26, 1980

Forwarded to:

Honorable Langhorne M. Bond
Administrator
Federal Aviation Administration
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-80-22 and -23

On May 30, 1979, at 2100 e.d.t., a deHavilland DHC-6-200 (N68DE) owned and operated by Downeast Airlines, crashed while making a "localizer only" approach to runway 3 at the Knox County Regional Airport, Rockland, Maine. Both flight crewmembers and 15 of the 16 passengers were killed; the surviving passenger was injured seriously.

The National Transportation Safety Board's investigation of the accident revealed that although instrument approaches to the Knox County Regional Airport are from the south, there are no reference visibility markers to measure low visibility conditions south of the airport. In addition, the Board notes that there are no published guidelines which specify the number and location of visibility markers needed at airports to assure representative surface visibility values.

Runway 3 at Knox County Regional Airport has a localizer only approach and a nondirectional beacon approach, and is used for instrument approaches. When the Rockland barometer is used, the minimum visibility for the localizer approach is 3/4 statute mile. At 2030, a surface visibility observation of 3/4 statute mile was transmitted to N68DE. This observation was based on the sighting of a lighted visibility marker located about 3/4 statute mile north of the airport. All visibility markers at Rockland located within 1.5 statute miles of the airport are to the north and west of the airport. In this circumstance it is highly unlikely that the visibility information available to the pilot of N68DE both before and during his approach to runway 3 was representative of the actual conditions. Since the only instrument approaches to the airport are made from the south, the Safety Board believes that more representative visibility information for the approach and landing should be made available by installing lighted visibility markers to the south of the airport.

Federal Meteorological Handbook No. 1, chapter A6, paragraphs 2.7 and 3.5, specify the types and the selection criteria for visibility markers. Meteorological Service for International Air Navigation Annex 3 to the Convention of International Civil Aviation recommends in paragraph 4.5.2 that "for reports for takeoff the visibility observations should be representative of the takeoff and climb out area, and for reports for landing the observations should be representative of the approach and landing area." However, neither the Federal Aviation Administration nor the National Weather Service publishes

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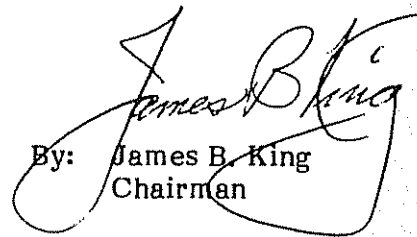
criteria for the location and number of visibility markers needed at airports to assure representative values of surface visibility. The Safety Board believes that a uniform set of guidelines should be developed to specify the location and number of visibility markers appropriate for airports to assure representative surface visibility values.

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

Insure that lighted visibility markers are installed south of the Knox County Regional Airport, Rockland, Maine, within sight in clear visibility conditions of the normal weather observation position. One of the markers should be placed about 3/4 statute mile from the point of observation. (Class II, Priority Action) (A-80-22)

Establish guidelines on the location and number of visibility markers necessary at airports to assure representative surface visibility values for airport runways and the airport runway environment. (Class II, Priority Action) (A-80-23)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations.


By: James B. King
Chairman