

**NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.**

FOR RELEASE: 6:30 P.M., E.D.T., AUGUST 4, 1976

(202) 426-8787

ISSUED: August 4, 1976

Forwarded to:

Honorable John L. McLucas
Administrator
Federal Aviation Administration
Washington, D. C. 20591

SAFETY RECOMMENDATION(S)

A-76-85 and 86

The National Transportation Safety Board continues to be concerned about the large number of weather-involved general aviation accidents. As you will recall, the Safety Board conducted a study of fatal, weather-involved general aviation accidents which was published in 1974. Because of its continuing concern, the Board has conducted a parallel study of nonfatal, weather-involved general aviation accidents.

The Special Study, "Nonfatal, Weather-Involved General Aviation Accidents," is based on the 7,856 such accidents which have occurred from 1964 through 1974. The Safety Board examined circumstances surrounding those accidents and drew conclusions about such factors as: Pilot time, time-in-type, time last 90 days, certificates held, geographical location, pilot age, weather briefings and weather forecasts, and time of year. Also examined were weather phenomena as a cause or a factor and actions by Government and industry designed to minimize weather-involved accidents.

As a result of its latest study, the Safety Board concluded that most nonfatal, weather-involved accidents occurred during the landing regime, either during the landing roll or during leveloff and touchdown, when unfavorable wind conditions existed and when the weather was VFR. Unfavorable winds were cited more than 5 times more frequently as a cause or factor than were low ceilings, and more than 16 times more frequently than thunderstorm activity.

Most of the pilots involved in the "unfavorable wind" accidents simply did not compensate properly for the ambient wind conditions or used poor judgement where they attempted to land. Some of the pilots may not have been aware of the exact wind conditions, but one pass over the intended runway would have revealed those conditions. On the other hand, the lack of appropriate wind measuring equipment on the ground or the misinterpretation of a windsock, for example, could have contributed to some of the accidents. As you know, a windsock can provide valuable

information concerning wind direction and some information relative to wind direction, but the windsock is of little or no value for gust information.

The Board is aware that the FAA is involved in an experimental program concerning the development of a pole and streamer device which is said to be an improvement over the windsock type of equipment. We are also aware that the FAA and the National Weather Service have established a number of working groups to work on priority items in order to improve aviation weather services and that one of the groups is concerned with pilot education.

The Safety Board believes that many of the accidents attributed to "unfavorable winds" could have been prevented by increased emphasis on the subject during pilot training and by the expedited development of a simple, economical wind-measuring system for use particularly at relatively small airports which are used primarily by general aviation aircraft.

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

Expedite the development, for operational purposes, of a simple, economical wind measuring system for use particularly at relatively small airports which are used primarily by general aviation aircraft. (Class II - Priority Followup) (A76-85)

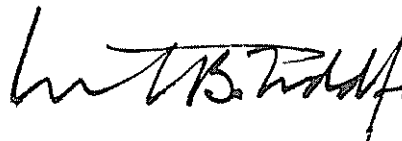
... In coordination with the National Oceanic and Atmospheric Administration/National Weather Service:

Through the FAA/NWS Working Group on Improving Pilot Education, place special emphasis on the hazards associated with unfavorable winds during the landing regime, by various means such as:

1. Discussions at safety seminars and clinics sponsored by the General Aviation Accident Prevention Program Specialists.
2. Changes in the Private Pilot's Test Guide (AC 61-32A).
3. Changes in the Private Pilot's Handbook of Aeronautical Knowledge (AC-61-23A).
4. Changes in Pilot Exam-O-Grams.
5. Addition of appropriate questions in both written and oral pilot examinations and checks.

6. Assuring through FAA Inspectors that Pilot Schools certificated under 14 CFR 141, highlight the problem in their training syllabi specified in 14 CFR 141.55 (6)(b)(2). (Class II - Priority Followup) (A76-86)

TODD, Chairman, McADAMS, HOGUE, BURGESS, and HALEY, Members, concurred in the above recommendations.



By: Webster B. Todd, Jr.
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.