

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

FOR RELEASE: 6:30 P.M., E.D.S.T., AUGUST 13, 1975

ISSUED: August 13, 1975

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-75-65

On November 3, 1974, the pilot of a Glasflugel Libelle H301B, a single-seat high performance sailplane, was killed at Frederick, Maryland, after the right wing of the sailplane separated in flight. Witnesses to the above accident all agreed that the Libelle was descending nose-low at a high rate of speed. A series of pitch oscillations was then observed just before separation of the wing. The National Transportation Safety Board subsequently determined that the pilot had inadvertently exceeded the design structural limits because of a lack of familiarity with this particular type of aircraft.

A typical high performance sailplane such as this one embodies aerodynamic and mechanical design features which are characteristically more sophisticated and complex than those of their less efficient counterparts. As a result, these features, like those of a high performance airplane, require that a pilot be thoroughly familiar with all related operational aspects and limitations. Presently, however, there are no prescribed requirements of any kind to assure a safe, coordinated transition from the secondary or intermediate types of gliders to these high performance sailplanes. Because pilot lack of familiarization is becoming increasingly suspect in connection with the causal circumstances of accidents involving these aircraft, the Safety Board believes that regulatory action by FAA is necessary in order to prevent a recurrence of the kind of tragedy which occurred at Frederick.

High performance sailplanes have very high lift-to-drag ratios and are designed to retain this aerodynamic efficiency over a rather substantial speed range. In addition, they are highly maneuverable, with light, responsive controls. These particular design characteristics which optimize the performance of these aircraft also make it relatively easy for the novice pilot to accelerate rapidly to high speed and to overload the structure or exceed the airspeed limitations.

The accident at Frederick demonstrates a need to assure that pilots of these aircraft are fully acquainted with their flight characteristics and limitations. A period of transitional flight training or familiarization in a two-place, high performance sailplane would be most desirable. However, because of the limited availability of such multiplace aircraft, a regulation requiring this training might place unduly burdensome constraints on the soaring industry as a whole. Instead, the Safety Board believes that a regulatory measure requiring a logbook endorsement by a certificated flight instructor as a necessary prerequisite to initial flight in these aircraft would prove effective. The flight instructor could endorse the logbooks of those pilots to whom he has provided either ground or flight instruction in connection with the operation of high performance sailplanes or those who, in his judgment, are otherwise qualified to operate them safely. Such a requirement appears most applicable to sailplanes having lift-to-drag ratios equal to or greater than 34.

In view of the above, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Require a logbook endorsement by a certificated flight instructor before a pilot's initial flight as pilot-in-command in a high performance sailplane. (Class III.)

REED, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members concurred in the above recommendation.

*J. M. Thayer*  
per By: John H. Reed  
Chairman

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.