

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: November 6, 1975

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-75-80 thru 83

On November 23, 1973, a Piper PA-28 struck trees while conducting a night approach to Lake Lawn Lodge Airport, Delavan, Wisconsin. Four persons were killed. Sixty-foot trees were located on the extended centerline of the runway and 380 feet from the displaced threshold.

On January 16, 1974, a Cessna 310G was involved in a similar accident at Manteo, North Carolina. The aircraft also was conducting a night approach under visual meteorological conditions when it struck trees which protruded into the approach surface to the runway.

On June 27, 1975, a Piper PA-28R-180 struck a truck while the aircraft was on final approach for runway 33 at Hap's Airport, Jeffersonville, Indiana. The truck was on a highway overpass, 180 feet from the runway threshold and 16 feet above the runway elevation. The threshold was not displaced. The accident occurred during daylight hours and under visual meteorological conditions.

Since runway 33 at Hap's Airport is a utility runway and has no instrument approach, 14 CFR 77.25 specifies that the approach surface extend for a horizontal distance of 5,000 feet at a slope of 20 to 1. The approach surface to runway 33 did not meet this standard and, as a result, on October 29, 1973, the State of Indiana's Aeronautics Commission refused to recertify the airport until the deficiencies were corrected. One deficiency cited by the Commission was, "The present threshold markings do not provide the needed clearance over the obstructions in the approach areas. The marking plan was drawn to provide a 20:1 (ratio) over the existing roads in the southeast approach." In order to meet the 20:1 approach surface ratio, the runway 33 threshold would have to be relocated 445 feet from its current location. The deficiencies were not corrected nor can the airport operator be required to correct them. An FAA-approved flight school and an air taxi operation are operated from this airport.

14 CFR 77 sets forth standards for determining obstructions in navigable airspace and guidelines for determining the approach surfaces to various types of runways. 14 CFR 77 explicitly defines which areas should be clear of obstructions. However, the Safety Board understands that, since your General Counsel advises that this Part is advisory, compliance with the obstacle clearance criteria set forth is not mandatory.

Advisory Circular 70/7460-1D recognizes the possibility that obstructions may exceed the obstruction criteria standard set forth in 14 CFR 77 and states, "When any object or portion thereof, either temporary or permanent, exceeds a height of 200 feet above site level or any standard for determining obstructions set forth in Part 77 of the Federal Aviation Regulations, that object should be marked and lighted exactly in accordance with the applicable standards" While the obstacle criteria in 14 CFR 77 applies to "Any object of natural growth, terrain, or permanent or temporary construction or alteration," AC 70/7460-1D makes no reference to trees which are classified as obstructions.

The Airport Directory, Part 2 of the Airman's Information Manual (AIM) lists "... only the more dangerous obstructions" The AIM frequently does not list natural obstructions, such as trees, that are clearly discernible for contact operations.

In the first two accidents mentioned above, trees exceeded the obstruction standards of 14 CFR 77, but were not listed as obstructions in any publication available to the aviation community. The phrases contained in the AIM, "... more dangerous obstructions ..." and "... clearly discernible for contact operations ..." are subject to individual interpretation and depend largely on lighting conditions, pilot proficiency, and pilot familiarity with the airport. These accidents, coupled with the third accident, illustrate that compliance with 14 CFR 77 should not be left to the discretion of the airport operator.

The Safety Board is aware that the Federal Aviation Administration believes it lacks the authority, under Section 307(a) of the Federal Aviation Act of 1958, to control obstacles which are determined to be hazards to air navigation or to require marking and lighting of such obstacles. The Safety Board believes that the accidents cited clearly indicate a need for corrective action.

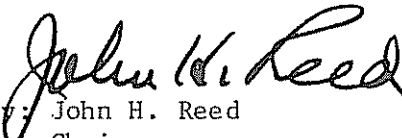
Accordingly, the National Transportation Safety Board recommends that the Federal Aviation Administration:

1. Seek statutory authority to require that each public-use airport runway have an approach surface which meets the specifications of 14 CFR 77. Class III

As an interim measure, the National Transportation Safety Board recommends that the Federal Aviation Administration:

2. Require the airport operator to issue a NOTAM concerning obstructions which violate the guidelines of 14 CFR 77. Class II
3. Identify, in the AIM, any public-use airport runway which does not have the approach surface required by 14 CFR 77. Class III
4. Require that the AIM list trees as obstructions to the approach surface of a runway. Class III

Members of our Bureau of Aviation Safety will be available for consultation if desired.


By: John H. Reed
Chairman

REED, Chairman, McADAMS, BURGESS, and HALEY, Members, concurred in the above recommendations. THAYER, Member, absent, not voting.