

BAS-6

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: November 5, 1974

Forwarded to:

Honorable Alexander P. Butterfield
Administrator
Federal Aviation Administration
Washington, D. C. 20591

SAFETY RECOMMENDATION(S)
A-74-92 thru 94

On March 13, 1974, shortly after takeoff, Sierra Pacific Airlines Charter Flight 802 crashed into a foothill of the White Mountains, $5\frac{1}{4}$ miles southeast of Bishop Airport, Bishop, California. The flight was making a visual climb in compliance with the published procedure during nighttime hours when it struck the foothill at an elevation of about 6,100 feet. The ceiling was an estimated 25,000 feet, and the surface visibility was 30 miles.

Bishop lies in a deep, funnel-shaped valley bounded on the west by the Sierra Nevada Mountains and on the east by the White Mountains. The valley south of Bishop is about 7 miles wide. To the north, the valley opens to about 12 miles wide. The valley floor at Bishop, and to the south, is flat with an average elevation of about 4,100 feet m.s.l. The floor to the north is composed of volcanic tableland that rises slowly in elevation. The highest terrain near the airport is the range of foothills and mountains to the east.

The terrain begins to rise from the valley floor about 2 nmi from the airport's eastern boundary; it rises to 4,400 feet m.s.l. at $2\frac{1}{2}$ nmi, 5,200 feet m.s.l. at $2\frac{2}{3}$ nmi, and 6,000 feet at $3\frac{1}{2}$ nmi. To the west, the terrain rises to 4,400 feet m.s.l. at $3\frac{1}{2}$ nmi and to 6,000 feet m.s.l. 5 nmi from the airport.

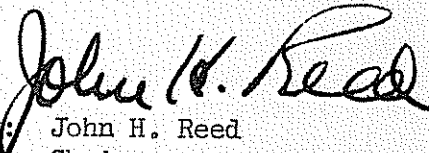
The published IFR climb procedure requires a visual climb to 8,000 feet m.s.l. within 2 nmi of the airport. This instruction implies that a circular flightpath should be made around the airport, maintaining a distance no greater than 2 nmi from the airport boundary. With no distance measuring equipment (DME) installed on the airport, the maintenance of the required distance becomes a matter of judgment that leaves little margin for error, especially to the east. At night, when the mountains are not visible and lights to the east of the airport are few, estimation of an aircraft's distance east of the airport is difficult. The lighted town of Bishop gives good guidance to a pilot west of the airport.

Bishop is located about 30 miles southeast of the Mammoth Ski area. The area is becoming increasingly popular, and therefore, the Bishop Airport traffic will probably increase proportionately. The increased traffic will no doubt be accompanied by larger aircraft carrying larger numbers of passengers.

In view of the difficulties in maintaining visually the prescribed distance from the airport, and in view of the proximity of high terrain and the traffic growth potential of the area, the National Transportation Safety Board recommends that the FAA:

1. Install a DME, cochanneled and collocated with the Bishop VOR.
2. Study the feasibility of an IFR climb procedure to the northwest of the Bishop VOR using a designated radial and the DME.
3. Require that all nighttime departures and arrivals at the Bishop Airport be conducted in accordance with the prescribed IFR procedures.

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


By: John H. Reed
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 BEFORE THAT DATE.