NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: April 6, 1978

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-78-18 through 20

On November 26, 1977, a Piper single-engine aircraft, en route from Sunnyvale, California, to Las Vegas, Nevada, crashed 10 nautical miles southwest of Independence, California. The pilot and three passengers were killed.

The crash site was in a box canyon where three other fatal accidents had occurred within the previous 18 months. The intended route of flight in all four cases followed Kings River Canyon east from Fresno, California, to the Independence area. About 10 miles from the end of the depicted route, going west to east, a pilot must make a sharp turn to the north through narrow terrain in order to cross the pass. However, at this point the Canyon route appears to bear south into a larger or more open area. The incorrect route to the south leads to the Center Basin Canyon, a box canyon with sides as high as 13,977 feet.

As a result of previous accidents, and resultant interest from various parties, the Kings River Canyon route was depicted via the standard blue diamonds on the San Francisco Sectional Chart beginning with the November 3, 1977, edition. The Board understands that the intent of the depiction was to keep pilots from flying into the box canyon. However, as a result of our investigation of the November 26 accident, the Board believes that the exact location of the Center Basin Canyon should be depicted and labeled in such a manner that its hazardous nature will be recognized by a pilot.

Furthermore, the Board believes that when a mountain pass route is depicted, the maximum height of the pass should be depicted in a manner associated with the route. The Board believes that the present system of identifying the altitude of a mountain pass can be too easily confused with critical elevation information.

The Board also believes that other popular mountain pass routes such as the pass west of Mammouth Lake and the pass east of Porterville, both north and south of the Kings River Route, should be depicted on the sectional chart. These routes can be flown at a lower altitude and would give an alternative for pilots planning a flight through a pass that accident records indicate as being hazardous.

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

Depict the exact location of the Center Basin Canyon on the appropriate sectional chart and label it in a manner that conveys its hazardous nature. (Class I-Urgent Action) (A-78-18)

Depict alternative mountain pass routes north and south of the Kings River Route on the appropriate sectional chart. (Class I-Urgent Action) (A-78-19)

Depict on all applicable sectional charts the altitude of mountain passes in a manner that avoids confusion with the critical elevation information. This altitude information should be presented in a manner that may be easily associated with the depiction of mountain pass routes. (Class I-Urgent Action) (A-78-20)

KING, Chairman, McADAMS, HOGUE, Members concurred in the above recommendation. BAILEY, Vice Chairman, did not participate.

y: James B. Chairman