

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: October 9, 1980

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-80-108 and -109

On January 10, 1980, N3839M, a Piper Arrow aircraft, crashed into a mountain after departing the Kalispell City Airport, Kalispell, Montana. All three persons aboard were killed.

The Safety Board's investigation disclosed that the pilot, who was employed at the Kalispell City Airport as an instrument flight instructor, had been issued, before takeoff, an IFR clearance to the Calgary Airport via direct to the Kalispell VOR, direct to the Calgary VOR. The clearance, issued by the Salt Lake City Air Route Traffic Control Center, included a climb to 14,000 feet and a transponder code. After acknowledging the clearance, the pilot asked, "Are we going to get vectors northbound?" The controller replied, "I could vector you to the Canadian border; after that I'm not sure if Canada can." The pilot answered, "We'll be receiving Lethbridge by that point."

As the aircraft reached the Kalispell VOR, the controller said "radar contact" and requested the aircraft's altitude. After the pilot reported leaving "five point five," the controller made the following transmission: "Three niner mike roger Lethbridge (unintelligible) bearing (unintelligible) five report reaching one four thousand." About 1 minute later, the pilot asked the center "...to let us know coming up on some high terrain if you would." The controller replied, "...are you in the clouds now?" The pilot said that they were. There were no more transmissions from N3839M.

The Kalispell Airport has no published instrument approach procedures and, thus, no published IFR departure procedures. An approach by visual reference to the terrain is the only means of access to this airport. However, there are no procedures which prohibit a pilot from filing an IFR flight plan and receiving an IFR clearance for departure from this airport or other airports not having published instrument departure procedures. Normally, a pilot files a route that may include a published Minimum En Route Altitude (MEA), a Standard Instrument Departure (SID), a Standard Arrival Route (STAR), a published IFR Departure Procedure for small airports, or a published

Instrument Approach Procedure, all of which provide sufficient altitude obstruction clearance. However, a departure clearance from an airport, such as the Kalispell Municipal, does not provide obstruction clearance. In fact, paragraph (5)(c), Instrument Departures, Obstruction Clearance During Departure, of the Airman's Information Manual, states,

"... At airports where instrument approach procedures have not been published, hence no published departure procedure, determine what action will be necessary and take such action that will assure a safe departure."

Thus, in IFR conditions, such departures involve a hazard because the pilot does not have available any published procedures for instrument flight. Furthermore, he cannot get radar vectors until the aircraft climbs to the minimum vectoring altitude (MVA). The ATC issuance of an IFR clearance for the portion of a flight before it reaches "protected airspace," or airspace that insures terrain avoidance, gives the pilot implied permission to fly under actual IFR conditions via the IFR flight plan in an area where the flight can only be accomplished safely under VFR. The Safety Board believes that, in order to assure terrain clearance, a departure of this nature must be conducted visually, and that the controller-issued IFR clearance should begin only at a point that provides separation from the terrain.

During its investigation, the Safety Board interviewed pilots who said that they expect the controller to be able to issue radar vectors after saying "radar contact." The ATC handbook prohibits vectoring aircraft below the MVA. Pilots have no access to MVA information because it is contained in documents in individual ATC facilities. These are not given general distribution. During the investigation, the controller stated that the MVA for the flight was 12,500 feet, that radar contact was established as the aircraft left 5,500 feet, that the target was non-mode C, and that the bearing to Lethbridge was an "information only" item.

The Safety Board believes that, in this accident, based on the controller's transmission, the pilot expected radar vectors and was not aware that the controller had no terrain information and therefore was unable to issue vectors until the aircraft was above the MVA. Because this misconception apparently is shared by many pilots, we believe a change in procedure is warranted.

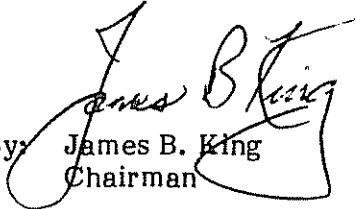
Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Amend Air Traffic Control Handbook 7110.65B so that the term "radar contact," when used in communications with pilots, means that the target is identified and that the controller is able to vector the aircraft, and to require that, if there is an operational advantage to either the controller or pilot for the controller to state "radar contact" when vectors cannot be provided, the pilot should be expressly informed that vectors cannot be provided. (Class II, Priority Action) (A-80-108)

Amend Air Traffic Control Handbook 7110.65B, paragraph 350, to require that when a pilot requests an IFR clearance from an airport with no published instrument departure procedures, the controller-issued IFR

clearance shall originate only from some point in space that insures terrain separation and that the pilot shall be instructed to remain VFR until reaching that point. (Class II, Priority Action) (A-80-109)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations.


By: James B. King
Chairman