

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: August 26, 1981

Forwarded to:

Honorable J. Lynn Helms
Administrator
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-81-88 through 91

On December 7, 1980, a Beechcraft E-90, N2181L, crashed near Michigan City, Indiana. There were no survivors, however, there is evidence that some or all of the four occupants survived the initial crash. Had the aircraft's last known position been correctly and expeditiously communicated to the proper authorities a rescue might have been effected. When South Bend, Indiana, approach control lost radar and radio communications with N2181L, a facility supervisor alerted the Indiana State Police to the possibility of a missing aircraft, rather than calling the Chicago Air Route Traffic Control Center (ARTCC) as he was required to do by Federal Aviation Administration (FAA) Handbook 7110.65B, dated January 1, 1980. ^{1/}

About 3 hours after radar and radio communications were lost with N2181L, Chicago ARTCC was advised of the missing aircraft by the U.S. Air Force Search and Rescue Center at Scott Air Force Base, Illinois. The Chicago ARTCC contacted South Bend approach control to confirm that the aircraft was missing. Consequently, the Chicago ARTCC, which is responsible for issuing an alert notice for missing or overdue aircraft, was more than 3 hours late issuing an alert notice.

About 45 minutes after N2181L was lost on radar, the Indiana State Police alerted the Michigan City Coast Guard facility. The U.S. Coast Guard (USCG) mission coordinator called South Bend approach control to determine the search location. The USCG mission coordinator was advised that the aircraft's last position was 3 to 5 miles west of the intersection of the 233° radial of the Keeler VOR and the 271° radial of the South Bend VOR. The USCG mission coordinator was trained to plot latitudes and longitudes, and he did not have the aeronautical charts possessed by his FAA contact. The USCG search for the missing aircraft began in the wrong location because FAA tower personnel did not follow established notification procedures. However, based on the USCG mission coordinator's estimate of the accident site, the search area was moved to a new location, which was also too far west.

^{1/} For more information read, "Special Investigation Report: Search and Rescue Procedures and Arming of Emergency Locator Transmitter, Aircraft Accident Near Michigan City, Indiana, December 7, 1980." (NTSB-SIR-81-2.)

About 3 1/2 hours after loss of radar contact with N2181L, a policeman observed lights flashing off the beach near Michigana Shores. Based on this information, the search area was moved to still another site where floating fuel was found on the surface of Lake Michigan -- 4 hours after radar and radio communication with N2181L was lost. No survivors were found.

The emergency locator transmitter (ELT) installed aboard N2181L did not activate when the aircraft hit the water, and consequently, no electronic signals were generated to guide rescuers to the crash site. Examination of the wreckage revealed that the ELT transmitter function switch was in the OFF position so the ELT could not be automatically activated under any circumstances. Because the ELT unit was recessed in the fuselage of N2181L and was inaccessible to the pilot, a remote switch had been installed on the right side of the fuselage. The remote switch could be used for test purposes to turn the ELT on regardless of the position of the transmitter function switch on the unit itself. This could have led the pilot to believe that the ELT was functioning properly when, in fact, the ELT was not activated. Because of this potential problem the manufacturer, Collins General Aviation Division, has drafted a Service Information Letter and updated the ELT owner's manual, Document 950012, to address this issue. Additionally, Beech Aircraft Company has provided a modification kit No. 101-3062-1 for all Beech aircraft with the CIR-11-2 ELT. When the kit is installed, a bracket will not allow the remote switching plugs to be inserted into the unit unless the ELT transmitter function switch is in the ARM position.

As a result of its special investigation of this accident, the National Transportation Safety Board recommends that the Federal Aviation Administration:

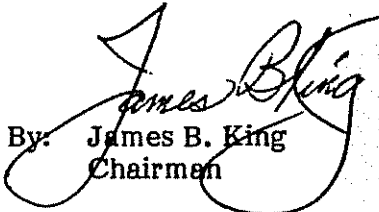
Take steps to make search and rescue operations less vulnerable to human error either by changes in terminal air traffic control accident notification procedures, or by changes in training, supervision, or performance monitoring. (Class II, Priority Action) (A-81-88)

Require air traffic control facilities to maintain current area maps that are standardized and coordinated with those used by local police and search and rescue authorities so that accurate search areas can be readily identified. (Class II, Priority Action) (A-81-89)

Issue an Airworthiness Directive to require that Beech kit No. 101-3062-1 be installed on all Beech aircraft which have the remote ELT switch installed. (Class II, Priority Action) (A-81-90)

Issue a General Aviation Airworthiness Alert advising all owners of ELT Model CIR-11-2 that they should obtain an updated owner's manual, Document 950012, for use in the installation and operation of this unit. The changes in the manual should also be summarized in the Airworthiness Alert. (Class II, Priority Action) (A-81-91)

DRIVER, Vice Chairman, and McADAMS, Member, concurred in these recommendations. KING, Chairman, and BURSLEY, Member, did not participate.


By: James B. King
Chairman

GOLDMAN, Member, concurred in Recommendations A-81-89 through 91, but disapproved Recommendation A-81-88 and filed the following comments:

I do not believe Recommendation A-81-88 is justified, even though I agree with its general objective. We must always strive to minimize the opportunity for human error. Nevertheless, this special investigation was based on only one accident and did not include a thorough evaluation of the existing procedures, training, or supervision. Therefore, the "human error" identified in this accident may have been an isolated incident not justifying the breadth of the recommendation.