498 A-258

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: November 6, 1995

In reply refer to: A-95-103 through -106

Honorable David R. Hinson
Administrator
Federal Aviation Administration
Washington, D.C. 20591

On October 31, 1994, about 1600 central standard time, a Simmons Airlines Avions de Transport Regional ATR-72-210, N401AM, operating as American Eagle flight 4184, crashed into a soybean field 3 miles south of Roselawn, Indiana. Flight 4184 was a scheduled passenger flight between Indianapolis, Indiana, and Chicago, Illinois, and was operating under an instrument flight rules flight plan. The four crewmembers and 64 passengers were killed, and the airplane was destroyed by impact forces.

While at Indianapolis International Airport, flight 4184 was instructed by the Indianapolis ground controller to hold on the ground, because the Air Traffic Control System Command Center facility (DCC) had implemented a ground delay program for inbound aircraft to the Chicago O'Hare International Airport due to deteriorated weather conditions. As a result, the flight held on the ground approximately 42 minutes.

The Safety Board's investigation of this accident is continuing, and probable causes have not been determined. However, while attempting to determine the circumstances surrounding the ground delay program, the Safety Board learned that although DCC is considered to be an ATC facility, facility documents, such as the Ground Delay Package, are not required to be retained. Further, the DCC is not required to respond to requests by other ATC facilities investigating an accident, and it is not included in ATC orders listing recording priorities for ATC facilities.

The Safety Board believes that DCC documents pertinent to air traffic are important to an accident investigation, especially when it is found that an accident flightcrew had experienced a delay from ATC before the accident. Some of the information included in the Ground Delay Package is:

(1) Time the ground delay program was generated.
(2) Surface weather observation at the time the program was initiated.
(3) Current National Weather Service Terminal Forecast.
(4) Operating initials of the National Traffic Management Officer (NTMO) who approved the implementation of the program.
(5) Reason for implementing the program.

(6) Number of arrival aircraft scheduled hourly for the airport.
(7) Airport Acceptance Rate (AAR), the number of arriving aircraft which an airport or airspace can accept from the Air Route Traffic Control Center hourly.
(8) Actual number of IFR arrival and departure aircraft, per hour, as reported.
(9) Runway configuration.
(10) Time and reason the delay program was cancelled.
(11) Critique on the program.
(12) Verification sheets, as required.

Although Safety Board investigators were eventually able to retrieve most of the information through interviews and documents retained by other facilities, considerable time and effort were required to do so, and information contained in the critique and the verification sheets were lost. The critique should have contained the evaluation of the controller's performance conducted by Quality Assurance. The verification sheet records the call sign, expected departure clearance time, and actual departure time for each flight inbound to the Chicago O'Hare International Airport. Using the verification sheet, controllers can determine if a flight departed within the allotted time, thus confirming the effectiveness of the program.

According to facility personnel, the Ground Delay Package is collectively classified as a "worksheet" and is used only for statistical information by office management; therefore, it is not subject to the normal 15-day retention period requirement. At the end of the day, the information is organized and sent to Quality Assurance personnel. According to FAA personnel, the Quality Assurance Division examines the package, places it in the "Read and Initial" binder for controllers to review, and then discards the package. Conceivably, this process could occur within 3 days.

FAA Order 8020.11, "Aircraft Accident and Incident Notification, Investigation, and Reporting," specifies the documents and recordings that regular ATC facilities shall retain in the event of an incident or accident. This order does not require that DCC retain any information other than FAA Form 7230-4, "Daily Record of Facility Operation," and FAA Form 7230-10, "Position Logs," which are standard items retained by all air traffic facilities. Because the DCC is a unique facility, its documents also are unique. The Safety Board believes that the DCC facility should be required to retain all facility documents for 15 days, regardless of title, name, or form number, for reconstruction purposes.

Additionally, in the event of an incident or accident, Order 8020.11 requires ATC facilities located along an accident aircraft's route of flight to provide pertinent documentation to be included in an accident/incident package. This documentation includes information contained in a weather briefing or transcript of conversations with the accident flightcrew. Because the DCC does not directly communicate with any flightcrews, there is no requirement for that facility to respond to the request. However, DCC actions, such as implementing a ground delay, may affect flights and be pertinent to incident and accident investigations. The Safety Board believes that FAA Order 8020.11 should be revised to include the DCC facility as a source, if needed, for the inclusion of its documents in an accident/incident package.

Additionally, FAA Order 7210.3, "Facility Operation and Administration," Chapter 3, "Facility Equipment," Section 4, "Recorders," paragraph 3-41, "Assignment of Recorder Channels," does not include the DCC facility. Although controllers do not communicate directly with flightcrews, inter- and intra-facility coordination may be pertinent to an accident investigation. In the absence of voice recordings, investigators are required to rely on the memory of controllers. As time passes, memories fade, and valuable information may be lost. DCC should determine what positions should be recorded and list their priority in FAA Order 7210.3.

According to FAA personnel, DCC is a relatively new facility with a unique mission; therefore, DCC documents and voice recordings are not included in the FAA Orders. However, the concept of the Command Center has been in existence since the 1970s, and although it was only recently established as a separate facility, its role has not changed significantly. The facility should be required to retain documents and voice recordings, and be involved in retention of accident materials as other ATC facilities are. The Safety Board is concerned that vital information may be lost because of this omission.

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

Require the Air Traffic Control System Command Center to retain all flow control-related facility documents for 15 days, regardless of title, name, or form number, for reconstruction purposes. (Class II, Priority Action) (A-95-103)

Develop a list of documents to be completed by the Air Traffic Control System Command Center personnel in the event of an incident or accident. (Class II, Priority Action) (A-95-104)

Revise Order 8020.11, "Aircraft Accident and Incident Notification, Investigation, and Reporting," to include the Air Traffic Control System Command Center (DCC) facility. Ensure that the DCC facility is assigned specific requirements to be included in an accident/incident package. (Class II, Priority Action) (A-95-105)

Revise FAA Order 7210.3, "Facility Operation and Administration," Chapter 3, "Facility Equipment," Section 4, "Recorders," paragraph 3-41, "Assignment of Recorder Channels," to include the Air Traffic Control System Command Center facility, listing the recorded positions and their priority. (Class II, Priority Action) (A-95-106)

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT and GOGLIA concurred in these recommendations.

By: Jim Hall
Chairman