National Transportation Safety Board
Office of Aviation Safety

April 6, 2000

ADDENDUM 1 TO
METEOROLOGICAL FACTUAL REPORT
DCA99MA060

A. ACCIDENT

Location:	Little Rock, Arkansas
Date:	June 1, 1999
Time:	2351 Central Daylight Time (0451Z June 2, 1999)
Aircraft:	American Airlines Flight 1420, McDonald-Douglas MD-82, N215AA

A. METEOROLOGICAL GROUP

Chairman:	Donald E. Eick Weather Group Chairman Meteorologist, Operational Factors Division National Transportation Safety Board Washington, D.C.
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C. SUMMARY

On June 1, 1999, at 2351 Central Daylight Time (CDT), a McDonnell Douglas MD-82, N215AA, operated by American Airlines as flight 1420, regularly scheduled passenger service from Dallas, Texas, overran the end of runway 4R and collided with the approach light stanchion at the Little Rock National Airport, in Little Rock, Arkansas. The captain and 10 passengers sustained fatal injuries; the remaining 134 passengers and crewmembers sustained various injuries. Shortly before the accident, the weather conditions at the airport were reported as: wind from 180 degrees at 9 knots, visibility 7 miles with thunderstorms, few clouds at 7,000 feet in cumulonimbus clouds, ceiling broken at 10,000 feet; temperature 77 degrees F, dew point 73 degrees F, altimeter 29.86 inches of mercury. Remarks; Automated Surface Observation System (ASOS) observation, thunderstorm began at 23 minutes after the hour, frequent lightning in-clouds and cloud-to-cloud, located from the west through the northwest, thunderstorms west through northwest moving northeast. The airplane was being operated in accordance with 14 CFR 121, and an instrument flight rules (IFR) flight plan had been filed

D. ADDENDUM

The following data is added from information gathered from the expert witnesses at the Public Hearing held in Little Rock, Arkansas on January 26 through 28, 2000.

Attachment 59 are the presentation notes from Dale Rhoda from the Massachusetts Institute of Technology (MIT), Lincoln Laboratory, from his report on "Aircraft Encounters With Thunderstorms in the Terminal Area". Attachment 60 is a CD with some of the animation based from that study that was presented during his testimony on January 27, 2000.

Attachments 61 is the presentation notes from Dr. Wesley Wilson from MIT Lincoln Laboratory, regarding the Low Level Alert System (LLWAS) algorithms and alerts. This section involves information involving section 6.0 of the Meteorological Factual Report.

Attachment 62 is an independently report written by Erik A. Proseus of MIT Lincoln Laboratory, entitled "A Meteorological Analysis of the Aircraft Accident at Adams Field, Little Rock, AR, Involving American Airlines Flight 1420", dated January 7, 2000.

[redacted]

Donald E. Eick
NTSB Meteorologist

[redacted]
4-7-00