



National Transportation Safety Board Aviation Accident Data Summary

Location:	LITTLE ROCK, AR	Accident Number:	DCA99MA060
Date & Time:	06/01/1999, 2351 CDT	Registration:	N215AA
Aircraft:	McDonnell Douglas MD-82	Injuries:	11 Fatal, 45 Serious, 65 Minor, 24 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

The full report (NTSB/AAR-01-02) is available on the NTSB Web site. See <http://www.ntsb.gov/Publictn/publictn.htm> for details.

On June 1, 1999, at 2350:44 central daylight time,¹ American Airlines flight 1420, a McDonnell Douglas DC-9-82 (MD-82), N215AA, crashed after it overran the end of runway 4R during landing at Little Rock National Airport in Little Rock, Arkansas. Flight 1420 departed from Dallas/Fort Worth International Airport, Texas, about 2240 with 2 flight crewmembers, 4 flight attendants, and 139 passengers aboard and touched down in Little Rock at 2350:20. After departing the end of the runway, the airplane struck several tubes extending outward from the left edge of the instrument landing system (ILS) localizer array, located 411 feet beyond the end of the runway; passed through a chain link security fence and over a rock embankment to a flood plain, located approximately 15 feet below the runway elevation; and collided with the structure supporting the runway 22L approach lighting system. The captain and 10 passengers were killed; the first officer, the flight attendants, and 105 passengers received serious or minor injuries; and 24 passengers were not injured.² The airplane was destroyed by impact forces and a postcrash fire. Flight 1420 was operating under the provisions of 14 Code of Federal Regulations (CFR) Part 121 on an instrument flight rules (IFR) flight plan.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight crew's failure to discontinue the approach when severe thunderstorms and their associated hazards to flight operations had moved into the airport area and the crew's failure to ensure that the spoilers had extended after touchdown.

Contributing to the accident were the flight crew's (1) impaired performance resulting from fatigue and the situational stress associated with the intent to land under the circumstances, (2) continuation of the approach to a landing when the company's maximum crosswind component was exceeded, and (3) use of reverse thrust greater than 1.3 engine pressure ratio after landing.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - CONTINUED - FLIGHTCREW
2. (F) FATIGUE - FLIGHTCREW
3. (C) IMPROPER DECISION - FLIGHTCREW
4. (F) PROCEDURES/DIRECTIVES - NOT COMPLIED WITH - FLIGHTCREW
5. (F) IMPROPER USE OF PROCEDURE - FLIGHTCREW

Occurrence #2: OVERRUN
Phase of Operation: LANDING - ROLL

- Findings
- 6. (C) SPOILER EXTENSION - NOT VERIFIED - FLIGHTCREW
 - 7. (F) REVERSERS - EXCESSIVE - FLIGHTCREW
 - 8. (F) IMPROPER USE OF EQUIPMENT/AIRCRAFT - FLIGHTCREW
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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

- Findings
- 9. (F) OBJECT - APPROACH LIGHT/NAVAID

Pilot Information

Certificate:	Airline Transport	Age:	48
Airplane Rating(s):	Multi-engine Land	Instrument Rating(s):	
Other Aircraft Rating(s):		Instructor Rating(s):	
Flight Time:	10234 hours (Total, all aircraft), 7384 hours (Pilot In Command, all aircraft), 54 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft)		

Co-Pilot Information

Certificate:	Airline Transport	Age:	35
Airplane Rating(s):	Multi-engine Land	Instrument Rating(s):	
Other Aircraft Rating(s):		Instructor Rating(s):	
Flight Time:	4292 hours (Total, all aircraft), 182 hours (Total, this make and model), 176 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	McDonnell Douglas	Registration:	N215AA
Model/Series:	MD-82 MD-82	Engines:	2 Turbo Fan
Operator:	AMERICAN AIRLINES INC	Engine Manufacturer:	P&W
Operating Certificate(s) Held:	Flag carrier (121)	Engine Model/Series:	JT8D-217C
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Overcast / 5000 ft agl	Wind Speed/Gusts, Direction:	18 knots / 26 knots, 280°
Temperature:	19° C	Visibility	1 Miles
Precipitation and Obscuration:			
Departure Point:	DFW, TX	Destination:	LITTLE ROCK, AR

Airport Information

Airport:	ADAMS FIELD (LIT)	Runway Surface Type:	Concrete
Runway Used:	4R	Runway Surface Condition:	Wet
Runway Length/Width:	7200 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 4 Serious, 1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	10 Fatal, 41 Serious, 64 Minor, 24 None	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC):	GREGEORY FEITH	Adopted Date:	05/28/2002
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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