



National Transportation Safety Board Aviation Accident Data Summary

Location:	CROSS CITY, FL	Accident Number:	MIA98LA002
Date & Time:	10/01/1997, 2044 EDT	Registration:	N33502
Aircraft:	McDonnell Douglas DC-9-82	Injuries:	1 Serious, 3 Minor, 91 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

During cruise flight at flight level 330, while deviating to the right to avoid a nearby thunderstorm of level 6 intensity, the flight encountered turbulence that seriously injured a flight attendant. As reported by the captain, the moderate turbulence lasted about 1 second. At that time the seat belt sign was not illuminated. About 2 minutes after the accident, the Jacksonville Air Route Traffic Control Center Weather Service Unit issued a center weather advisory which indicated a thunderstorm with moderate rain, tops to flight level 450, 20 nautical miles in diameter. When plotted, the location was located about 23 nautical miles from the accident location.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The in-flight encounter with turbulence associated with a nearby level 6 thunderstorm with moderate rain while deviating.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) WEATHER CONDITION - TURBULENCE(THUNDERSTORMS)

Pilot Information

Certificate:	Airline Transport; Commercial; Flight Engineer	Age:	41
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	3389 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	McDonnell Douglas	Registration:	N33502
Model/Series:	DC-9-82 DC-9-82	Engines:	2 Turbo Fan
Operator:	AMERICAN AIRLINES, INC.	Engine Manufacturer:	P&W
Operating Certificate(s) Held:	Flag carrier (121)	Engine Model/Series:	JT8D
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Bright
Observation Facility, Elevation:	GNV, 152 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	4 knots / , 300°
Temperature:	23° C	Visibility	7 Miles
Precipitation and Obscuration:			
Departure Point:	CHICAGO, IL (ORD)	Destination:	TAMPA, FL (TPA)

Wreckage and Impact Information

Crew Injuries:	1 Serious, 2 Minor, 2 None	Aircraft Damage:	None
Passenger Injuries:	1 Minor, 89 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC):	TIMOTHY W MONVILLE	Adopted Date:	11/10/1998
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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