
Turbulence injury, McDonnell Douglas DC-9-82, May 26, 2004

Micro-summary: This McDonnell Douglas DC-9-82 experienced turbulence in descent, injuring a flight attendant.


Event Date: 2004-05-26 at 1720 CDT

Investigative Body: National Transportation Safety Board (NTSB), USA

Investigative Body's Web Site: <http://www.nts.gov/>

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		NTSB ID: CHI04LA127		Aircraft Registration Number: N573AA	
		Occurrence Date: 05/26/2004		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Near St. Louis		State MO	Zip Code 63074	Local Time 1720	Time Zone CDT
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility: 63		Direction From Airport: 260	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-9-82 (MD-82)		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On May 26, 2004, at 1720 central daylight time, a McDonnell Douglas DC-9-82 (MD-82), N573AA, operated by American Airlines as flight 1396, encountered turbulence during descent into the Lambert International Airport (STL), St. Louis, Missouri. One flight attendant received serious injuries and one passenger received a minor injury. The captain, first officer, 2 remaining flight attendants, and 82 passengers were not injured. The 14 CFR Part 121 scheduled domestic passenger flight was operating in instrument meteorological conditions on an instrument flight rules flight plan at the time of the encounter. The flight originated from Orange County, California, at 1228 pacific daylight time. The flight continued to its original destination of STL where it landed uneventfully.</p> <p>The captain's report stated they were on the TRAKE arrival into STL and they were deviating to the south due to weather. As they were descending at 280 to 290 knots through 12,000 feet they encountered an updraft which lasted about 2 seconds. They had just entered the cloud tops when this occurred. The cockpit crew was then informed that a flight attendant in the rear of the airplane was thrown off her feet and injured when they encountered the turbulence. Another passenger who was in the lavatory when the turbulence was encountered, reported that he hit his head. The flight crew declared an emergency. The captain reported they were immediately cleared for the approach and they landed on runway 12R at STL without incident. Emergency personnel met the airplane. The flight attendant was removed from the airplane and transported to the hospital where it was determined that she suffered broken ribs, a fractured wrist, and pelvic fractures. The passenger refused medical treatment.</p> <p>According to crewmembers, the seatbelt sign was on when the turbulence was encountered.</p> <p>Another flight attendant who was in the aisle reported, "The plane dipped severely and I nearly hit the ceiling. I came down hard on my knees. I immediately took the nearest pax [passenger] seat and strapped in." This flight attendant reported that a few minutes later a passenger came up the aisle to inform the number 1 flight attendant that the flight attendant in the rear of the airplane had been injured.</p> <p>The flight was deviating 15 nautical miles (nm) south of a thunderstorm when the turbulence was encountered. The airplane was 30 distance measuring equipment (DME) on the 247 Radial from the Forristell very high frequency omnidirectional range (FTZ VOR) or approximately 55 nm west-southwest of STL when it encountered the turbulence. Scattered thunderstorms were forecast for the area. Convective Sigmet 25C was issued at 1555 valid until 1755 for an area 50 miles south-southwest of Decatur, Illinois, to 20 miles east of Columbia, Missouri. This Sigmet reported a line of thunderstorms 35 nm wide moving from 260 degrees at 50 knots with tops to 35,000 feet. Tornadoes, 2-inch hail, and wind gusts to 60 knots were possible. This line of storms continued to move to the east-southeast. Convective Sigmet 33C was issued at 1755 valid until 1955 for an area 30 miles north-northeast of Quincy, Illinois, to 50 miles south of Terre Haute, Indiana, to 20</p>					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

SAFETY BOARD

NTSB ID: CHI04LA127


Occurrence Date: 05/26/2004


Occurrence Type: Accident

Narrative (Continued)

miles east-northeast of Springfield, Missouri, to 30 miles north-northeast of Quincy, Illinois. This Sigmet reported an area of severe thunderstorms moving from 250 degrees at 55 knots with tops to 41,000 feet.

At 1735, another MD-80 pilot reported an encounter with severe turbulence at 11,000 feet, about 40 miles west-southwest of STL.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI04LA127				
		Occurrence Date: 05/26/2004				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name St. Louis International		Airport ID: STL	Airport Elevation 604 Ft. MSL	Runway Used NA	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach: ILS-complete						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-9-82 (MD-82)		Serial Number 53092		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 137	Certified Max Gross Wt. 149500 LBS		Number of Engines: 2	
Engine Type: Turbo Jet		Engine Manufacturer: Pratt & Whitney		Model/Series: JT8D-200-7C	Rated Power: 21000 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 05/2004	Time Since Last Inspection Hours		Airframe Total Time 38987 Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? No		ELT Operated? No		ELT Aided in Locating Accident Site? No		
Owner/Operator Information						
Registered Aircraft Owner American Airlines, Inc.		Street Address P.O. Box 619612				
		City DFW Airport		State TX	Zip Code 75261	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner				
		City		State	Zip Code	
Operator Does Business As: American Airlines				Operator Designator Code: AALA		
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Flag Carrier/Domestic						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only						

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: CHI04LA127
	Occurrence Date: 05/26/2004
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 58
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; Flight Instructor; Commercial; Flight Engineer

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: Glider

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Multi-engine; Instrument Airplane

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 01/2004
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	17531	4329								
Pilot In Command(PIC)	6790	4167								
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used?	Shoulder Harness Used?	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: IFR	
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Departure Point Orange County	State CA	Airport Identifier SNA	Departure Time 1228	Time Zone PDT
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Destination St. Louis	State MO	Airport Identifier STL	
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Type of Clearance: IFR

Type of Airspace: Class E

Weather Information

Source of Briefing:
Company

Method of Briefing: In Person

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
STL	1805	CDT	604 Ft. MSL	62 NM	80 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			4000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Overcast		10000 Ft. AGL		Visibility: 4 SM	Altimeter: 29.75 "Hg
Temperature: 17 °C	Dew Point: 17 °C	Wind Direction: 80		Density Altitude: Ft.	
Wind Speed: 8	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV)	SM	Intensity of Precipitation:		
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: None	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants		1		2	3
Other Crew					
Passengers			1	82	83
- TOTAL ABOARD -		1	1	86	88
Other Ground					
- GRAND TOTAL -		1	1	86	88

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National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: CHI04LA127

Occurrence Date: 05/26/2004

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Pamela S. Sullivan

Additional Persons Participating in This Accident/Incident Investigation:

Donald Dunn
Inspector
FAA
10801 Pear Tree Lane
St. Ann, MO 63074