
Turbulence injury, McDonnell Douglas DC-9-82, November 30, 2001

Micro-summary: This McDonnell Douglas DC-9-82 encountered turbulence during cruise, seriously injuring a passenger.


Event Date: 2001-11-30 at 1225 EST

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

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

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		NTSB ID: CHI02LA043		Aircraft Registration Number: N488AA	
		Occurrence Date: 11/30/2001		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Romulus		State MI	Zip Code 48174	Local Time 1225	Time Zone EST
Airport Proximity:		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-9-82		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 November 30, 2001, about 1225 eastern standard time, a McDonnell Douglas DC-9-82, N488AA, operated as American Airlines flight 321 from New York to Chicago, piloted by an airline transport rated captain and copilot, sustained a serious in-flight injury to one passenger when the flight encountered turbulence near London, Ontario, Canada. The flight diverted to Detroit Metropolitan Wayne County Airport (DTW), near Romulus, Michigan. The 14 CFR Part 121 scheduled domestic passenger flight was operating on an IFR flight plan. Visual meteorological conditions prevailed at the time of the accident. The 2 flight crewmembers, 3 cabin crewmembers, and remaining 84 passengers were uninjured. The flight originated from La Guardia Airport, near New York, New York, at 1102, and was enroute to Chicago O'Hare International Airport (ORD), Chicago, Illinois at the time of the accident. The flight landed at DTW at 1247.</p> <p>The passenger stated:</p> <p>When I got up to go to bathroom there was no warning of any turbulence, there was no seat belt sign. Outside weather, lighting conditions I recall as normal. I saw one person waiting for front end bathroom. As such I went to back of the plane. As I was going I passed 1 flight attendant collecting cups and another sitting near the entrance of toilet. She mentioned to me some one is in the toilet. As she said that the person in came out of the toilet. I do not recall any voice announcement of turbulence while I was in the toilet. I went to wash my hands and it took less than a minute total in the toilet.</p> <p>As I was coming out, may be two feet from the entrance of the toilet I was thrown up-down a number of times. I tried to sit or catch the seats in vain. I saw two flight attendants seated and every attempt I made to catch something was failed. It was extremely severe turbulence. ...</p> <p>I fell on the ground. I saw my rt ankle is completely dislocated. Once the turbulence was over two flight attendants helped me to be on the seats.</p> <p>The captain stated:</p> <p>... Seatbelt sign was on from beginning of flight due to light chop. Ride began to deteriorate at [flight level] FL280 so we descended to FL240. Ride was still light chop until a point past [London VOR] YXU30 on [Jet airway] J36. We encountered a pocket of severe turb[ulence]. Immediately requested descent to FL200. After receiving clearance to descend ride smoothed out passing FL200. Flight attendants called up on the interphone and reported a man who was exiting aft lav as we hit the turb had injured his foot. Flight attendants reported to captain that foot was possibly broken. Crew notified [Air Traffic Control] ATC of medical emergency and requested landing at DTW and for medical assistance to meet aircraft. First officer flew aircraft and coordinated with ATC while captain called dispatch and coordinated with flight attendants. Uneventful landing was made. Paramedics came up aft airstair at the gate and assisted</p>					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: CHI02LA043

Occurrence Date: 11/30/2001


Occurrence Type: Accident


Narrative (Continued)

injured passenger.

A flight attendant stated:

... I told each person who got up to use the rest room that, the seat belt sign was on and, that they should be in their seats with their seat belts on and, that, they should not be up. During the whole flight it was choppy. The Captain made a PA after take off around 15-20 minutes into the flight that he was going to leave the seat belt sign on because it was choppy and we had just come in from ORD and that flight was bumpy. 'So for their safety' he said, 'he was going to leave the sign on until he felt it was safe enough to turn it off.' 'So he said, please stay in your seat with your seat belts on.' After I cleaned up the galley I went out to pick up. [The flight attendant] (#4) was up front. I came to the back and decided to take a seat in row 31D. It was still bumpy. [The #4 flight attendant] was then on her way back and she sat down in row 30-Seat F. The cabin was clear of passengers and so was the bathrooms. Then [the], (passenger) got up and came to the back. I told him that 'the seat belt sign was on and that he should be in his seat with his seat belt on.' He continues to the RH bathroom. [The #4 flight attendant] got up and a PA from the aft PA. She told the passengers that, 'the seat belt sign was on and they should remain in their seat with their seat belts on.' She then returned to row 30 seat F. About 1-2 minutes after her PA the passenger ... came out of the lav. It was bumpier then so I told him to take a seat. Right now in row 30-seat D. As he started in for row 30 we hit severe turbulence. Both myself and F/A (#4) tried to grab him. He flew up and down in the air about 4 to 5 times until the turbulence stopped.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI02LA043			
		Occurrence Date: 11/30/2001			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown					
Runway Surface Condition: Unknown					
Type Instrument Approach: Unknown					
VFR Approach/Landing: Unknown					
Aircraft Information					
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-9-82		Serial Number 49681	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 137	Certified Max Gross Wt.	150500 LBS	Number of Engines: 2	
Engine Type: Turbo Fan	Engine Manufacturer: Pratt & Whitney	Model/Series: JT8D-200	Rated Power: 20000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 05/2001	Time Since Last Inspection 4325 Hours	Airframe Total Time 38867 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner AMERICAN AIRLINES INC		Street Address 4333 Amon Carter Blvd			
		City Fort Worth	State TX	Zip Code 76155	
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:			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					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: CHI02LA043
	Occurrence Date: 11/30/2001
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 45
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Sex: M	Seat Occupied: Center	Principal Profession: Civilian Pilot	Certificate Number:
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land

Rotorcraft/Glider/LTA:

Instrument Rating(s): Airplane

Instructor Rating(s):

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 05/2001
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 10/2001
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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	10000		1000							
Pilot In Command(PIC)	4000	600								
Instructor										
Last 90 Days		55								
Last 30 Days		13								
Last 24 Hours		7								

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

Type of Flight Plan Filed: IFR

Departure Point NEW YORK	State NY	Airport Identifier LGA	Departure Time 1102	Time Zone EST
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Destination CHICAGO	State IL	Airport Identifier ORD	
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Type of Clearance: IFR

Type of Airspace: Class A

Weather Information

Source of Briefing: Company

Method of Briefing: Teletype

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
DTW	1126	EST	640 Ft. MSL	100 NM	250 Deg. Mag.
Sky/Lowest Cloud Condition:				Ft. AGL	Condition of Light: Day
Lowest Ceiling: Broken		1700 Ft. AGL		Visibility: 10 SM	Altimeter: 29.74 "Hg
Temperature: 9 °C	Dew Point: 7 °C	Wind Direction: 220			Density Altitude: Ft.
Wind Speed: 22	Gusts: 28	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
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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				3	3
Other Crew					
Passengers		1		84	85
- TOTAL ABOARD -		1		89	90
Other Ground					
- GRAND TOTAL -		1		89	90

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: CHI02LA043

Occurrence Date: 11/30/2001

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Edward F. Malinowski

Additional Persons Participating in This Accident/Incident Investigation:

Efrain A Arroyo
Inspector
Federal Aviation Administration
8800 Beck Road
Belleville, MI 48111