
Turbulence injury, Boeing 757-200, March 1, 2004

Micro-summary: This Boeing 757-200 experienced severe turbulence in descent, injuring a flight attendant.


Event Date: 2004-03-01 at 1422 CST

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

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

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		NTSB ID: CHI04LA084		Aircraft Registration Number: N516UA	
		Occurrence Date: 03/01/2004		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Janesville		State WI	Zip Code 53545	Local Time 1422	Time Zone CST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 757-200		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 March 1, 2004, at 1422 central standard time, a Boeing 757-200, N516UA, operated by United Airlines as flight 1212 encountered moderate turbulence while in a descent 20 miles west-southwest of Janesville, Wisconsin. One flight attendant suffered a broken ankle and tibia during the encounter. The captain, first officer, 4 flight attendants, and 169 passengers were not injured. The airplane was not damaged. The 14 CFR Part 121 scheduled, domestic, passenger flight was operating in instrument meteorological conditions (IMC) at the time. The flight was on an instrument flight rules (IFR) flight plan. The flight originated from the Portland International Airport (PDX), Portland, Oregon, at 0915 pacific standard time. The flight continued to its planned destination of Chicago International Airport (ORD), Chicago, Illinois, where it landed at 1450.</p> <p>The captain reported the autopilot was engaged from the time they leveled off after departure until reading the final approach fix at ORD. He reported that when they were about 50 nautical miles (nm) west of Mason City, Iowa, they were cleared direct to Janesville (JVL), Wisconsin. He stated they noticed lowering visibilities at lower altitudes and cumulus clouds building in the distance so they turned on the radar and kept it on until landing. The captain reported they were in instrument conditions between flight level (FL) 260 down to 10,000 feet. The captain reported that when they were about 70 nm west of JVL, they were cleared direct to JVL which was a course of about 090 degrees. He reported that when they were about 60 nm west of JVL they turned to a heading of 120 degrees to avoid a green cell that had a 1nm yellow diameter. The captain stated they passed south of the cell in smooth air. He reported that when 20 nm west of JVL they were cleared direct to the KRENA intersection. The captain reported the seat belt sign was turned on as they descended through FL180. He reported they encountered about 15 seconds of moderate turbulence as they passed through 16,000 feet. He reported there were no weather returns in the area and they were back in smooth air after the encounter.</p> <p>The first officer recounted essentially the same events as the captain. However, he reported that he informed the flight attendants to take their seats as soon as they began to encounter the turbulence. He reported he was getting ready to call the flight attendants after the turbulence to make sure they were alright, when the cockpit received a call from the back stating that one of the flight attendants injured her ankle. The first officer reported that they requested paramedics meet the flight upon landing.</p> <p>The injured flight attendant reported she was in the aft galley when they encountered the turbulence. She stated she tried to get in the jumpseat, but was unable to because of the turbulence. The injured flight attendant stated she heard another flight attendant tell a passenger who was in the aft galley to sit on the floor, so she decided to do the same. She stated that as she was sitting down the "plane dropped" and she fell. Once the turbulence subsided, the other flight attendant and a passenger helped her off the floor and into a seat.</p>					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: CHI04LA084

Occurrence Date: 03/01/2004

Occurrence Type: Accident

Narrative (Continued)

A flight attendant in the front of the airplane reported she was going to her jumpseat to make a public address announcement when they encountered the turbulence. She stated she flew into the air and as she came back down her arm caught on the jumpseat pulling it open. Another flight attendant in the front of the airplane was restrained by a passenger during the turbulence encounter.


None of the flight attendants recalled having any advance warning of the turbulence.


Rapidly building convective activity was evident along the upper Mississippi Valley at the time of the accident. Convective tops averaging FL250 in the area were moving north-northeast at 60 knots.

Severe Weather Advisory 15S valid from 1731 universal coordinated time (UTC) to 2301 UTC covered the route of flight from the Mississippi River to ORD. The severe thunderstorm watch included a forecast for hail, surface wind gusts to 60 knots, maximum cloud tops to FL450, and a storm motion vector to 240 degrees at 35 knots.

Convective SIGMET 25C was valid until 2255UTC. The SIGMET called for an area of embedded thunderstorms moving from 190 degrees at 20 knots. The thunderstorms had tops to FL300.

Data from the digital flight data recorder (DFDR) shows the airplane experienced vertical acceleration fluctuations from a minimum of 0.437 g's, to a maximum of 1.994 g's, and back to 0.576 g's in less than 3 seconds.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI04LA084			
		Occurrence Date: 03/01/2004			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used NA	Runway Length	Runway Width
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach: Unknown					
VFR Approach/Landing: Unknown					
Aircraft Information					
Aircraft Manufacturer Boeing		Model/Series 757-200		Serial Number 24860	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 192	Certified Max Gross Wt.	240000 LBS	Number of Engines: 2	
Engine Type: Turbo Fan	Engine Manufacturer: Pratt & Whitney	Model/Series: PW 2000	Rated Power: 37000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 11/2002	Time Since Last Inspection 3699 Hours	Airframe Total Time 45092 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner United Airlines, Inc.		Street Address P.O. Box 66100			
		City Chicago	State IL	Zip Code 60666	
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: United Airlines			Operator Designator Code: UALA		
- 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: CHI04LA084
	Occurrence Date: 03/01/2004
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 51
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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; Commercial; Flight Engineer

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

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 11/2002
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 12/2003
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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	16750	4055								
Pilot In Command(PIC)	6745	3976								
Instructor										
Last 90 Days	166	166								
Last 30 Days	61	61								
Last 24 Hours	4	4								

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

Type of Flight Plan Filed: IFR				
Departure Point	State	Airport Identifier	Departure Time	Time Zone
Portland	OR	PDX	0915	PST
Destination	State	Airport Identifier		
Chicago	IL	ORD		


Type of Clearance: IFR

Type of Airspace: Class A

Weather Information

Source of Briefing:
Company

Method of Briefing: In Person

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	Occurrence Type: Accident

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
JVL	1445	CST	808 Ft. MSL	20 NM	90 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			3200 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		6500 Ft. AGL		Visibility: 10 SM	Altimeter: 29.50 "Hg
Temperature: 13 °C	Dew Point: 7 °C	Wind Direction: 200		Density Altitude: Ft.	
Wind Speed: 6	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		4	5
Other Crew					
Passengers				169	169
- TOTAL ABOARD -		1		175	176
Other Ground					
- GRAND TOTAL -		1		175	176

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National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: CHI04LA084

Occurrence Date: 03/01/2004

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Pamela S. Sullivan

Additional Persons Participating in This Accident/Incident Investigation:

Bob Wood
Inspector
FAA
9950 W. Lawrence, Suite 400
Schiller Park, IL 60176