
Turbulence injuries, Boeing 737-500, November 1, 2003

Micro-summary: This Boeing 737-500 encountered turbulence on descent. Two people were injured.


Event Date: 2003-11-01 at 1215 MST


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


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

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1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN04LA019		Aircraft Registration Number: N956UA	
		Occurrence Date: 11/01/2003		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Denver		State CO	Zip Code 80249	Local Time 1215	Time Zone MST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 737-500		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 1, 2003, at approximately 1215 mountain standard time, a Boeing 737-500, N956UA, operated by United Airlines as flight 1232, encountered turbulence while on approach to Denver International Airport (DEN), Denver, Colorado. The airline transport captain and airline transport first-officer, 1 flight attendant, and 92 passengers were not injured; however, 1 flight attendant was seriously injured and 1 flight attendant received minor injuries. Instrument meteorological conditions prevailed. The scheduled domestic passenger flight was being conducted under the provisions of Title 14 CFR Part 121. An instrument flight rules flight plan had been filed for the flight from Boise, Idaho, to Denver, Colorado, departed at 1045.</p> <p>At flight level (FL) 310, air traffic control advised the captain that light to moderate turbulence existed between FL170 and FL 200. The flight crew directed the passengers to take their seats and fasten their seatbelts. During the descent, at FL 240, the captain asked the cabin crew to take their seats. At FL 210, the flight encountered "heavy to moderate turbulence with two rapid up-down vertical-G cycles." One flight attendant received minor injuries and another flight attendant received a fractured ankle. The flight continued to Denver without further incident.</p>					
FACTUAL REPORT - AVIATION					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN04LA019			
		Occurrence Date: 11/01/2003			
		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: Unknown					
Runway Surface Condition: Unknown					
Type Instrument Approach: NONE					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer Boeing		Model/Series 737-500		Serial Number 26704	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 123	Certified Max Gross Wt. 122500 LBS	Number of Engines: 2		
Engine Type: Turbo Fan	Engine Manufacturer: CFM International	Model/Series: CFM56-3-B1	Rated Power: 20000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 02/2003	Time Since Last Inspection 1641 Hours	Airframe Total Time 29534 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 Wilmington Trust Company		Street Address Rodney Square North 1100 North Market Street			
		City Wilmington	State DE	Zip Code 19890	
Operator of Aircraft UNITED AIR LINES INC		Street Address P.O. Box 66100			
		City Chicago	State IL	Zip Code 60666	
Operator Does Business As:			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					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: DEN04LA019
	Occurrence Date: 11/01/2003
	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: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; 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? 07/2003
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 06/2003
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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	4751	1838								
Pilot In Command(PIC)		1838								
Instructor										
Last 90 Days	246	246								
Last 30 Days	90	90								
Last 24 Hours	6	6								

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 Boise	State ID	Airport Identifier BOI	Departure Time 1045	Time Zone MST
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Destination Same as Accident/Incident Location	State	Airport Identifier DEN	
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Type of Clearance: IFR

Type of Airspace: Class A

Weather Information

Source of Briefing: Company

Method of Briefing: Aircraft Radio; Teletype

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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
DEN	1153	MST	5431 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Thin Overcast			500 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Overcast		500 Ft. AGL	Visibility: 4 SM	Altimeter: 29.95	"Hg
Temperature: -1 °C	Dew Point: -1 °C	Wind Direction: 300		Density Altitude: 4907	Ft.
Wind Speed: 7	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
Restrictions to Visibility: Fog					
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	1	1	3
Other Crew					
Passengers				92	92
- TOTAL ABOARD -		1	1	95	97
Other Ground					
- GRAND TOTAL -		1	1	95	97

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National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: DEN04LA019

Occurrence Date: 11/01/2003

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

James F. Struhsaker

Additional Persons Participating in This Accident/Incident Investigation:

John Stevenson
Air Safety Inspector
FAA FSDO
Denver, CO 80249