



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Janesville, WI	<b>Accident Number:</b>	CHI04LA084
<b>Date &amp; Time:</b>	03/01/2004, 1422 CST	<b>Registration:</b>	N516UA
<b>Aircraft:</b>	Boeing 757-200	<b>Injuries:</b>	1 Serious, 175 None
<b>Flight Conducted Under:</b>	Part 121: Air Carrier - Scheduled		

## Analysis

A flight attendant suffered a broken ankle and tibia when the airplane encountered turbulence during descent. The captain reported the seat belt sign was turned on as they descended through 18,000 feet. 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. The first officer 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. 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. 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 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.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:  
The unexpected encounter with convective turbulence.

## Findings

Occurrence #1: ALTITUDE DEVIATION, UNCONTROLLED  
Phase of Operation: DESCENT - NORMAL

Findings

1. (C) WEATHER CONDITION - TURBULENCE, CONVECTION INDUCED
2. (C) UNSAFE/HAZARDOUS CONDITION - NOT IDENTIFIED

## Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial; Flight Engineer	<b>Age:</b>	51
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	16750 hours (Total, all aircraft), 4055 hours (Total, this make and model), 6745 hours (Pilot In Command, all aircraft), 166 hours (Last 90 days, all aircraft), 61 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Co-Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial; Flight Engineer	<b>Age:</b>	37
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	Airplane Single-engine; Instrument Airplane
<b>Flight Time:</b>	6026 hours (Total, all aircraft), 2001 hours (Total, this make and model), 242 hours (Last 90 days, all aircraft), 63 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N516UA
<b>Model/Series:</b>	757-200	<b>Engines:</b>	2 Turbo Fan
<b>Operator:</b>	United Airlines, Inc.	<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>Operating Certificate(s) Held:</b>	Flag carrier (121)	<b>Engine Model/Series:</b>	PW 2000
<b>Flight Conducted Under:</b>	Part 121: Air Carrier - Scheduled		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	JVL, 808 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	Broken / 6500 ft agl	<b>Wind Speed/Gusts, Direction:</b>	6 knots / , 200°
<b>Temperature:</b>	13°C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Portland, OR (PDX)	<b>Destination:</b>	Chicago, IL (ORD)

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious, 6 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	169 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Latitude, Longitude:</b>	42.619444, -89.040278		

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Pamela S Sullivan	<b>Adopted Date:</b>	06/08/2005
<b>Investigation Docket:</b>	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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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