
Turbulence injuries, Boeing 767-223, July 22, 1998

Micro-summary: This Boeing 767-223 experienced turbulence during climb, seriously injuring passenger and injuring a flight attendant.


Event Date: 1998-07-22 at 1345 CST


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


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

Cautions:

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).
 2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. ***Your company's flight operations manual is the final authority as to the safe operation of your aircraft!***
 3. Reports may or may not represent reality. Many many non-scientific factors go into an investigation, including the magnitude of the event, the experience of the investigator, the political climate, relationship with the regulatory authority, technological and recovery capabilities, etc. It is recommended that the reader review all reports analytically. Even a "bad" report can be a very useful launching point for learning.
 4. Contact us before reproducing or redistributing a report from this anthology. Individual countries have very differing views on copyright! We can advise you on the steps to follow.
-

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI98LA269		Aircraft Registration Number: N335AA	
		Occurrence Date: 07/22/1998		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place PEOTONE		State IL	Zip Code 60468	Local Time 1345	Time Zone CST
Airport Proximity: Unknown		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 767-223		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On July 22, 1998, at 1345 central daylight time (cdt), a Boeing 767-223, N335AA, operated by American Airlines as flight #1758, encountered moderate turbulence while climbing through flight level 180 over Peotone, Illinois. The airplane was not damaged. One passenger received serious injuries and one flight attendant received minor injuries. Two cockpit crewmembers, 5 flight attendants and 128 passengers were not injured. The 14 CFR Part 121 flight had departed Chicago's O'Hare International Airport (ORD) with an original destination of Raleigh-Durham, North Carolina. The flight returned to ORD and landed at 1406 cdt following the turbulence encounter. The airplane was in IFR conditions when the encounter occurred.</p> <p>The flight crew reported that while climbing through FL180, approximately 10 mile west of the Peotone VOR, they encountered moderate turbulence for a time period of about 5 seconds. They reported that they were in the clouds, but their weather radar was not showing any returns and there were no reports of turbulence either by air traffic control or by other airplanes in the area. The flight crew reported the seat belt sign was on. Shortly after encountering the turbulence they were informed that the #2 flight attendant and one passenger were injured as a result of the turbulence. The decision was made to return to the O'Hare International Airport.</p> <p>The injured flight attendant reported she was in the rear galley setting up for service when the turbulence was encountered. She reported, "... the back of the airplane swayed harder than usual and I pushed against the counter tops. My first thought was to get to my jumpseat but by the time I could move, we dropped and I flew up and hit my head on the ceiling. I came back down and hit the back side of my right thigh." She stated she eventually got back into her jumpseat. She recalled seeing a deadheading flight attendant helping a female passenger up off the floor. The deadheading flight attendant then provided assistance to her.</p> <p>Both the #2 flight attendant and the injured passenger were transported to the hospital upon landing at O'Hare. The flight attendant was treated and released from the hospital with bruises. The passenger suffered a broken rib.</p> <p>The deadheading flight attendant reported the injured passenger who was in seat 38H, did have her seatbelt fastened, but that the belt "...released below the seat cushion." A maintenance inspection of the seat belt revealed the male portion of the belt disconnected from the attach point. The attach point and the latching mechanism were both intact.</p> <p>A review of the Flight Data Recorder data revealed the airplane experienced vertical accelerations ranging from -0.14g's to 1.429g's during the turbulence encounter.</p>					
FACTUAL REPORT - AVIATION					
Page 1					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI98LA269				
		Occurrence Date: 07/22/1998				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name		Airport ID:	Airport Elevation Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach:						
VFR Approach/Landing:						
Aircraft Information						
Aircraft Manufacturer Boeing		Model/Series 767-223		Serial Number 22333		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 305	Certified Max Gross Wt. 351000 LBS		Number of Engines: 2	
Engine Type: Turbo Fan		Engine Manufacturer: Rolls-Royce		Model/Series: RB211	Rated Power: 43100 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection	Time Since Last Inspection Hours		Airframe Total Time Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? Yes		ELT Operated? No		ELT Aided in Locating Accident Site?		
Owner/Operator Information						
Registered Aircraft Owner WILMINGTON TRUST COMPANY		Street Address 1100 N. MARKET ST				
		City WILMINGTON		State DE	Zip Code 19890	
Operator of Aircraft AMERICAN AIRLINES, INC.		Street Address P.O. BOX 61616				
		City DFW AIRPORT		State TX	Zip Code 75261	
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: CHI98LA269
	Occurrence Date: 07/22/1998
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 56
-----------------	-----------------	------------------	--------------------------	-----------

Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
--------	---------------------	--------------------------------------	-----------------------------

Certificate(s): Airline Transport; Flight Engineer

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

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft?	Current Biennial Flight Review?
---	---------------------------------

Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 07/1998
------------------------	--	------------------------------------

- 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	15707	557	150	13757				1300		
Pilot In Command(PIC)	8533	4900	100	7533				900		
Instructor										
Last 90 Days		150								
Last 30 Days		61								
Last 24 Hours		9								

Seatbelt Used? Yes	Shoulder Harness Used? No	Toxicology Performed? No	Second Pilot? Yes
--------------------	---------------------------	--------------------------	-------------------

Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point CHICAGO	State IL	Airport Identifier ORD	Departure Time 1319	Time Zone CDT
----------------------------	-------------	---------------------------	------------------------	------------------

Destination RALEIGH-DURHAM	State NC	Airport Identifier RDU	
-------------------------------	-------------	---------------------------	--


Type of Clearance: IFR

Type of Airspace: Class A

Weather Information

Source of Briefing: Company

Method of Briefing:

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: CHI98LA269
	Occurrence Date: 07/22/1998
	Occurrence Type: Accident

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
MDW	1353	CDT	620 Ft. MSL	36 NM	5 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			3000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		9500 Ft. AGL		Visibility: 10 SM	Altimeter: 29.00 "Hg
Temperature: 26 °C	Dew Point: 19 °C	Wind Direction: 320		Density Altitude: Ft.	
Wind Speed: 9	Gusts:	Weather Conditions at Accident Site:			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
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	5	6
Other Crew					
Passengers		1		128	129
- TOTAL ABOARD -		1	1	135	137
Other Ground	0	0	0		0
- GRAND TOTAL -	0	1	1	135	137

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: CHI98LA269

Occurrence Date: 07/22/1998

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

PAMELA S. SULLIVAN

Additional Persons Participating in This Accident/Incident Investigation:

RUSS RAUPP
9950 W. LAWRENCE, SUITE 400
SCHILLER PARK, IL 60176