## Turbulence injury, Boeing 737-3H4, June 25, 1999

Micro-summary: This Boeing 737-3H4 experienced turbulence during cruise, seriously injuring a flight attendant.

Event Date: 1999-06-25 at 1945 CDT

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

Investigative Body's Web Site: http://www.ntsb.gov/

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National Transportation Safety Board			FTW99LA20		Aircraft Registration Number: N650SW				
	FACTUAL REPORT Occurrent Occurrent				Most Critical Injury: Serious				
AYIATION					Investigated By: NTSB				
Location/Time									
Nearest City/Place	State	Zip	Code	Local Time	Time Zone				
LAFAYETTE	LA	70509		1945	CDT				
Airport Proximity: Off Airport/Airstrip	Distance From	m La	inding Facility:	•	Direction From Airport:				
Aircraft Information Summary									
Aircraft Manufacturer			Model/Series	S	_		Type of Aircraft		
Boeing		737-3H4			Airplane				

Air Medical Transport Flight: No

## Narrative

Sightseeing Flight: No

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On June 25, 1999, approximately 1945 central daylight time, a Boeing 737-3H4 transport category airplane, N650SW, operating as Southwest Airlines Flight 1257, was undamaged during an in-flight encounter with turbulence near Lafayette, Louisiana. A flight attendant working in the aft galley was seriously injured. The 137 passengers, 2 flight crewmembers, and 2 other flight attendants were not injured. The airplane was owned and operated by Southwest Airlines Co., of Dallas, Texas. Instrument meteorological conditions prevailed for the Title 14 Code of Federal Regulations Part 121 flight for which an instrument flight rules (IFR) flight plan was filed. The scheduled domestic passenger flight was dispatched from the Houston Hobby Airport (HOU) at approximately 1918, with the New Orleans International Airport/Moisant Field (MSY) near New Orleans, Louisiana, as its intended destination.

The captain, who was the non flying pilot, reported that while in cruise flight at FL330, approximately 125 miles west of MSY, he became aware of thunderstorm activity over MSY after receiving the current ATIS for MSY. The captain stated that he informed the first officer of the weather, and the first officer turned on the seat belt sign and made an announcement to the passengers that the flight was about to initiate a descent into MSY. He briefed the passengers about the possibility of encountering turbulence while in the vicinity of thunderstorms during the descent and approach phase of the flight.

The captain further stated that several minutes later, the flight entered an area "of stratus-like clouds" with a small cell approximately 20 miles to the left of their flight path. The captain reported that the airplane experienced a "sudden jolt" which he described as "similar to crossing the wake of another 737 at 90 degrees." The jolt was followed by 10 to 12 seconds of light to occasional moderate turbulence. The turbulence ended when the airplane exited the clouds, and smooth air prevailed for the remainder of the flight.

A flight attendant in the aft galley of the airplane reported that she was reaching inside one of the galley cabinets when the turbulence occurred. She reported that "the plane dropped, she went up in the air and when she came down, she landed on her ankle." The injured flight attendant called the captain on the intercom and reported her injury. The captain asked her to try to reach the jump seat and strap in, which she did. An uneventful landing was made at MSY.

The flight attendant was transported to a local hospital. The injuries to the flight attendant were initially reported as minor. Three days after the occurrence, the NTSB learned that she had sustained "a broken distal fibula that was displaced."

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: FTW99LA207

Occurrence Date: 06/25/1999

AVIATION Occurre			ırrence	Туре:	Accident								
Landing Facility/Approach Infor	mation												
Airport Name			Airport	ID:	Airport Elevat	tion	Run	way Used	Runwa	y Lengt	th	Runv	vay Width
					Ft.	MSL	0						
Runway Surface Type:									<u> </u>				
Runway Surface Condition:													
Type Instrument Approach:													
VFR Approach/Landing:													
Aircraft Information													
Aircraft Manufacturer				//del/9 737-31						Serial 2772	Number		
Boeing				131-3						2112			
Airworthiness Certificate(s): Transpo	ort												
Landing Gear Type: Retractable - T	ricycle												
Homebuilt Aircraft? No No	rcraft? No Number of Seats: 145					Certified Max Gross Wt.				130000 LBS Number			: 2
				Engine Manufacturer: Model/Series: CFM-56									ed Power: 100 LBS
- Aircraft Inspection Information													
Type of Last Inspection			Date o	Date of Last Inspection Tir			Time Si	Time Since Last Inspection					tal Time
Continuous Airworthiness			06/1	06/1999					Hours				Hours
- Emergency Locator Transmitter (EL	T) Information												
ELT Installed? No	ELT Operate	ed?				ELT	Aided i	n Locating Ac	cident S	ite?			
Owner/Operator Information													
Registered Aircraft Owner	St	Street Address P.O. BOX 36611											
SOUTHWEST AIRLINES CO.			Cit	City							Stat	:e	Zip Code
			DALLAS								TX		75235
Operator of Aircraft			Str	reet Ac		Rea	d Aircr	aft Owner					
Same as Reg'd Aircraft Owner				Same as Reg'd Aircraft Owner City							State Zip Co		Zip Code
Operator Does Business As: SOUTHWEST AIRLINES  Operator Designator Code: SWAA													
- Type of U.S. Certificate(s) Held:  Air Carrier Operating Certificate(s): FI	lag Carrier/Dom	nestic											
Air Carrier Operating Certificate(s):	lag Carrier/Doir	iesiic											
Operating Certificate:					Operator C	ertific	ate:						
Regulation Flight Conducted Under: F	Part 121: Air Ca	ırrier											
Type of Flight Operation Conducted: \$	Scheduled; Dor	nestic;	; Passe	enger	Only								
	]	FACT	UAL R	REPOI	RT - AVIATI	ON							Page 2

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: FTW99LA207

Occurrence Date: 06/25/1999

	AVIATI	QN	Occurrence	ce Type: Acc								
First Pilot In	formation											
Name					(	City			State	Date	of Birth	Age
On File		On File			On File	On I	File	45				
Sex: M S	Seat Occupied:	Left	Pri	ncipal Profes	sion: Civilian	Pilot		С	ertificate Nu	mber: C	n File	
Certificate(s): Airline Transport; Flight Instructor												
Airplane Ratin	g(s): Multi	-engine Lar	nd; Single-e	ngine Land								
Rotorcraft/Glic	ler/LTA: None	)										
Instrument Ra	ting(s): Airpl	ane										
Instructor Rati	ng(s): Airpla	ane Multi-er	ngine; Airpla	ane Single-	engine							
Type Rating/Endorsement for Accident/Incident Aircraft? Yes  Current Biennial Flight Review?												
Medical Cert.:	vers/lim.		Date of	Last Medica	l Exam:	01/1999						
'												
- Flight Time N	ght Time Matrix  All A/C  This Make and Model  Airplane Airplane Single Engine  Mult-Engine						Insti Actual	Instrument al Simulated		aft	Glider	Lighter Than Air
Total Time		14000	8000	1800	12200	3000	2000	)				
Pilot In Comma	and(PIC)	9200	4000	1700	7500	1500	1000	)				
Instructor		1000		1000		100	50	)				
Last 90 Days		240	240		240	50	20	)				
Last 30 Days		95	95		95	10	5	5				
Last 24 Hours		6	6		6	1						
Seatbelt Used	Toxic	ology Perfo	med? No	١	Second	Pilot? Ye	es					
Flight Plan/I	ltinerary											
Type of Flight	Plan Filed: <b> F</b>	R										
Departure Poi	nt					State	Air	Airport Identifier		Departure Time		Time Zone
HOUSTON						TX	НС	HOU		1918		CDT
Destination						State	Air	Airport Identifier				
NEW ORLEANS							MS					
Type of Clear	ance: IFR					•	•		·			
Type of Airspa	ace: Class	Ą										
Weather Inf	formation											
Source of Brie	efing: Compa	any										
Method of Brid	efing:											
				FACTUAL	REPORT -	AVIATIO	N					Page 3
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National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: FTW99LA207

Occurrence Date: 06/25/1999

Occurrence Type: Accident

	FTYBOR			Julience	турс. д	Acciden	ι						
Weather	Information												
WOF ID	Observation Time	Time Zone	WOF F	Elevation		WOF Di	NOF Distance From Accident Site Direction From Accident S			Site			
MSY	1942	CDT		7 Ft. M	SL				125 NM 90 Deg. I			g. Mag.	
Sky/Lowes	st Cloud Condition: Unkr	nown					0 Ft. AGL		Condition of Light: Day				
Lowest Ce	eiling: Overcast	ercast 800 Ft. AGL Visibility: 2 SM Altimeter: 29.00							"Hg				
Temperatu	ure: 23 °C	Dew Point:	23	3 °C /	Wind E	Direction:	70	Density Altitude:					Ft.
Wind Spee	ed: 5	Gusts:		\	Weath	er Condti	ons at Accide	ent Site	e: Instrume	ent C	Conditions		
Visibility (F	RVR): 0 Ft.	Visibility	(RVV)	0 \$	SM	Intensity	of Precipitat	tion: <b>N</b>	1oderate				
Restrictions to Visibility: Haze													
Type of Precipitation: Rain Showers													
Accident	Information												
Aircraft Damage: None Aircraft Fire: No									Aircraft Expl	losio	n None		
Classificati	ion: U.S. Registered/U	J.S. Soil											
- Injury Su	mmary Matrix	Fatal	Serious	Minor	1	None	TOTAL						
First Pi	lot					1	1						
Second	d Pilot					1	1						
Studen	nt Pilot												
Flight I	nstructor				$\perp$								
Check	Pilot				$\perp$								
Flight E	Engineer												
Cabin /	Attendants		1			2	3						
Other (	Crew												
Passer	igers					137	137						
- TOTAL A	ABOARD -		1			141	142						
Other (	Ground	0	0		0		0						
- GRANE	O TOTAL -	0	1		0	141	142						

National Transportation Safety Board

## FACTUAL REPORT AVIATION

NTSB ID: FTW99LA207

Occurrence Date: 06/25/1999

Occurrence Type: Accident

	Informati	

Investigator-In-Charge (IIC)

HECTOR R. CASANOVA

Additional Persons Participating in This Accident/Incident Investigation:

BOB R GILLASPIE FAA FSDO BATON ROUGE, LA 70811