



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Paris, Tennessee	Accident Number:	DCA24LA130
Date & Time:	March 14, 2024, 23:00 Local	Registration:	N8520Q
Aircraft:	Boeing 737-800	Aircraft Damage:	None
Defining Event:	Turbulence encounter	Injuries:	1 Serious, 117 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

A flight attendant (FA) sustained a serious injury on Southwest Airlines flight 5797 when it encountered turbulence during cruise flight while enroute to Charleston International Airport (CHS), Charleston, South Carolina.

Southwest Airlines reported that their flight attendant jumpseat positions are as follows on the 737-800 aircraft: the "A" and "C" FA's are positioned in the forward galley and the "B" and "D" FA's are positioned in the aft galley.

The flight crew reported that before the flight, the captain briefed the two forward galley position FAs to expect a "rough" ride after departure on the initial climb and that if smooth air was encountered it would not last long. He also informed them of a line of convective weather that they would need to deviate through, and that they should expect turbulence until they were well clear of that weather. Although the captain was not able to meet with the two aft galley FAs before departure, he was assured that the preflight briefing would be relayed to them.

The flight crew reported that the climb and initial cruise flight was turbulent; however, they briefly experienced a smooth ride for about 20 minutes before the flight was expected to encounter another area of turbulence. The captain stated that he had notified the FA's that if they got up, he wanted them in their seats at least five minutes before the expected turbulence and provided a specific time for them to be seated.

After the brief smooth ride, the flight experienced the expected continuous light to moderate turbulence as the flight crew navigated through a line of convective weather.

The turbulence persisted longer than initially anticipated, so the captain called the FA's to advise them to expect continued turbulence. At this time, the captain was informed that the "D" position FA had injured herself by splashing a pot of coffee onto her head, face, and shoulders.

The "B" position FA reported that the captain had notified the FA's that the flight might encounter turbulence and to remain seated if the rough air materialized. Due to the smooth air encountered during the initial cruise portion of the flight, the FA's were able to quickly complete a passenger service and be resealed. The "B" position FA recalled that the captain had asked the FA's to take their seats before the second area of turbulence was encountered.

The "D" position FA reported that she brewed a fresh pot of hot coffee for the passengers. After brewing the coffee, she picked up the coffee pot by its handle to pour a cup. However, at that moment, the aircraft encountered turbulence, causing the coffee pot to strike a handle near the coffee machine. As a result, hot coffee splashed on her.

Upon being notified of the injury, the captain messaged dispatch via the aircraft communications addressing and reporting system and coordinated to have medical personnel meet the airplane upon arrival at the gate. The aircraft was met by paramedics who immediately transported the injured FA to a hospital where she was diagnosed with second degree burns.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

An encounter with convective turbulence.

Findings	
Environmental issues	Convective turbulence - Effect on personnel
Environmental issues	Convective turbulence - Contributed to outcome

Factual Information

History of Flight

Enroute-cruise	Turbulence encounter (Defining event)
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Pilot Information

Certificate:	Airline transport	Age:	47
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Waiver time limited special	Last FAA Medical Exam:	February 21, 2024
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	March 3, 2024
Flight Time:	15579 hours (Total, all aircraft), 7693 hours (Total, this make and model), 3636 hours (Pilot In Command, all aircraft), 177 hours (Last 90 days, all aircraft), 76 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Airline transport; Military	Age:	35
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	January 19, 2024
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 21, 2023
Flight Time:	3500 hours (Total, all aircraft), 350 hours (Total, this make and model), 1800 hours (Pilot In Command, all aircraft), 73 hours (Last 90 days, all aircraft), 36 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Cabin crew Information

Certificate:	None	Age:	
Airplane Rating(s):		Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	None
Instrument Rating(s):		Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N8520Q
Model/Series:	737-800	Aircraft Category:	Airplane
Year of Manufacture:	2017	Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	42532
Landing Gear Type:	Retractable - Tricycle	Seats:	182
Date/Type of Last Inspection:	March 8, 2024 Continuous airworthiness	Certified Max Gross Wt.:	174700 lbs
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:	24060 Hrs as of last inspection	Engine Manufacturer:	CFM INTL
ELT:	Installed, not activated	Engine Model/Series:	CFM56-7B27E/F
Registered Owner:	SOUTHWEST AIRLINES CO	Rated Power:	27300 Lbs thrust
Operator:	SOUTHWEST AIRLINES CO	Operating Certificate(s) Held:	Flag carrier (121)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Chicago, IL (KMDW)	Type of Flight Plan Filed:	IFR
Destination:	Charleston, SC (KCHS)	Type of Clearance:	IFR
Departure Time:		Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Serious, 5 None	Aircraft Damage:	None
Passenger Injuries:	112 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 117 None	Latitude, Longitude:	36.331882,-88.534588

Administrative Information

Investigator In Charge (IIC): Hauf, Michael

Additional Participating Persons: FAA

Original Publish Date: July 19, 2024

Last Revision Date:

Investigation Class: [Class 4](#)

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=193963>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).