
Turbulence injury, Airbus A319-111, June 2, 2003

Micro-summary: This Airbus A319-111 encountered turbulence on approach. One flight attendant was seriously injured.


Event Date: 2003-06-02 at 2029 MDT


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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		NTSB ID: DEN03LA094		Aircraft Registration Number: N910FR	
		Occurrence Date: 06/02/2003		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Denver	State CO	Zip Code 80239	Local Time 2029	Time Zone MDT	
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Airbus Industrie		Model/Series A319-111		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 June 2, 2003, at 2029 mountain daylight time, an Airbus Industrie A319-111, N910FR, owned by Frontier Airlines, Inc., and operated as flight 045, encountered turbulence during final approach into Denver International Airport (DEN), Denver, Colorado. The airline transport certificated captain and first officer, 2 flight attendants, and 97 passengers were not injured; however, 1 flight attendant was seriously injured. Visual meteorological conditions prevailed. An IFR flight plan had been filed for the scheduled domestic passenger flight being operated under the provisions of Title 14 CFR Part 121. The flight originated in Cancun, Mexico, at approximately 1553.</p> <p>According to a Frontier Airlines representative, the flight had been holding southeast of DEN due to thunderstorms in the area. The flight has just left the holding pattern. The pilot made the announcement for passengers and flight attendants to take their seats. Descending through approximately 11,000 feet msl, the flight encountered turbulence. A flight attendant was stowing a beverage cart and was thrown up in the air, fell and fractured her left ankle.</p> <p>At 1953 the METAR (automated weather observation) at DEN reported occasional lightning in-cloud, distant southeast; thunderstorm moving southeast; virga distant northeast thru southeast thru south of the station; cumulonimbus clouds distant northeast thru southeast thru south, moving southeast; rain showers in the distant southeast. Aviation Routine Weather Report (METAR) report taken at 2053 reported winds were from 160 degrees at 13 knots; visibility 10 statute miles; few clouds at 7500 feet agl; scattered clouds at 12,000 feet; agl, broken clouds at 15,000 feet agl; temperature 13 degrees Celsius; dewpoint 9 degrees Celsius; altimeter setting 29.93; virga distant east and south of the station; cumulonimbus clouds distant east and south, moving southeast.</p>					
FACTUAL REPORT - AVIATION					
					Page 1

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN03LA094				
		Occurrence Date: 06/02/2003				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name Denver International Airport		Airport ID: DEN	Airport Elevation 5431 Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown						
Runway Surface Condition: Unknown						
Type Instrument Approach: Unknown						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer Airbus Industrie		Model/Series A319-111		Serial Number 1781		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 140	Certified Max Gross Wt. 154400 LBS		Number of Engines: 2	
Engine Type: Turbo Fan		Engine Manufacturer: General Electric		Model/Series: CFM 56-5B 5/P	Rated Power: 22000 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 06/2003	Time Since Last Inspection 18.9 Hours		Airframe Total Time 3012.2 Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? Yes		ELT Operated? No		ELT Aided in Locating Accident Site? No		
Owner/Operator Information						
Registered Aircraft Owner Frontier Airlines Inc		Street Address Frontier Center One 7001 Tower Road				
		City Denver		State CO	Zip Code 80249	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner				
		City		State	Zip Code	
Operator Does Business As:				Operator Designator Code: F3LA		
- 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/Cargo						
FACTUAL REPORT - AVIATION						

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: DEN03LA094
	Occurrence Date: 06/02/2003
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 36
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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

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? 05/2003
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 01/2003
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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	4598	450	743	3855	1639	383				
Pilot In Command(PIC)										
Instructor										
Last 90 Days		217								
Last 30 Days		88								
Last 24 Hours										

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 Cancun	State	Airport Identifier MMUN	Departure Time 1653	Time Zone CDT
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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:

Weather Information

Source of Briefing: Company

Method of Briefing: Teletype

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: DEN03LA094
	Occurrence Date: 06/02/2003
	Occurrence Type: Accident

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
DEN	2053	MDT	5431 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Few			7500 Ft. AGL	Condition of Light: Dusk	
Lowest Ceiling: Broken		15000 Ft. AGL		Visibility: 10 SM	Altimeter: 29.93 "Hg
Temperature: 13 °C	Dew Point: 9 °C	Wind Direction: 160		Density Altitude: 6585 Ft.	
Wind Speed: 13	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
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		2	3
Other Crew					
Passengers				97	97
- TOTAL ABOARD -		1		101	102
Other Ground					
- GRAND TOTAL -		1		101	102

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National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: DEN03LA094

Occurrence Date: 06/02/2003

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

James F. Struhsaker

Additional Persons Participating in This Accident/Incident Investigation:

Roger O Kenny
Air Safety Inspector
Denver FSDO
Denver, CO