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## Turbulence injury, September 30, 1999

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**Micro-summary: This Airbus A319 experienced turbulence during descent, seriously injuring a flight attendant.**

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**Event Date: 1999-09-30 at 1315 EDT**


**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).
  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!***
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		NTSB ID: NYC99LA240		Aircraft Registration Number: N821UA	
		Occurrence Date: 09/30/1999		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place SPARTA	State NJ	Zip Code 07871	Local Time 1315	Time Zone EDT	
Airport Proximity: Unknown		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Airbus Industrie		Model/Series 319-131		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 September 30, 1999, about 1315 Eastern Daylight Time, an Airbus A319-131, N821UA, operated by United Airlines as flight 1509, encountered turbulence over Sparta, New Jersey. The airplane was not damaged. Two flight crew members, 2 flight attendants, and 40 passengers were not injured; however, a third flight attendant sustained a serious neck injury. Visual meteorological conditions prevailed, and an instrument flight rules flight plan had been filed for the scheduled passenger flight that departed Boston International Airport (BOS), Boston, Massachusetts, at 1205. The flight was conducted under 14 CFR Part 121 and was destined for Dulles International Airport (IAD), Dulles, Virginia.</p> <p>The captain reported light chop to occasional light turbulence at flight level 310 en route to IAD. About 15 minutes from IAD, a flight attendant notified the captain that another flight attendant had been thrown against door 2L and became unconscious. After a few minutes, she regained consciousness and was administered oxygen by a third flight attendant. The captain declared a medical emergency and requested that paramedics meet the flight upon landing at IAD. According to the captain, no significant weather was forecast for the flight.</p> <p>According to the injured flight attendant, the seat belt sign was "on", but no announcement had been made for the flight attendants to be seated. Two of the flight attendants had returned to their seats and the injured flight attendant was locking a cart in the galley when she "felt a bump." As she was proceeding to her seat, the airplane encountered another "bump" and she was thrown against the assist handle on the 2L door. She fell to the floor and became unconscious for about 2 minutes. The other two flight attendants provided her with oxygen and placed blankets under her head. The injured flight attendant remained in the same position on the floor until the flight landed. After landing, the injured flight attendant was transported by helicopter to a local hospital.</p> <p>According to a United Airlines representative, the flight attendant suffered from a herniated C-6 disk. She remained in the local hospital for 5 days, and was then transported to a different hospital for surgery to repair the disk.</p> <p>Weather reports indicated no forecasted turbulence along the route of flight. At flight level 310, winds were from the west/southwest at 50-70 knots. No significant vertical or horizontal wind shear was forecast at that altitude, and pilot reports for the area indicated no turbulence at cruise levels.</p>					
FACTUAL REPORT - AVIATION					
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 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: NYC99LA240			
		Occurrence Date: 09/30/1999			
		Occurrence Type: Accident			
<b>Landing Facility/Approach Information</b>					
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:					
<b>Aircraft Information</b>					
Aircraft Manufacturer Airbus Industrie		Model/Series 319-131		Serial Number 944	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 131	Certified Max Gross Wt. 155200 LBS	Number of Engines: 2		
Engine Type: Turbo Fan	Engine Manufacturer: Int'l Aero En	Model/Series: V2522-A5	Rated Power:		
- Aircraft Inspection Information					
Type of Last Inspection Unknown	Date of Last Inspection	Time Since Last Inspection Hours	Airframe Total Time Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner UNITED AIRLINES		Street Address BOX 66100			
		City CHICAGO	State IL	Zip Code 60666	
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: UALA		
- 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><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: NYC99LA240
	Occurrence Date: 09/30/1999
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 57
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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; Flight Engineer

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?	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 08/1999
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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	11244	3129		11244						
Pilot In Command(PIC)	3129	3129		3129						
Instructor										
Last 90 Days	163	163		163						
Last 30 Days	45	45		45						
Last 24 Hours	5	5		5						

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 BOSTON	State MA	Airport Identifier BOS	Departure Time 1205	Time Zone EDT
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Destination DULLES	State VA	Airport Identifier IAD	
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Type of Clearance: IFR

Type of Airspace: Class A

**Weather Information**

Source of Briefing: Company

Method of Briefing:

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>	NTSB ID: NYC99LA240
	Occurrence Date: 09/30/1999
	Occurrence Type: Accident

<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
PHL	1254	EDT	22 Ft. MSL	40 NM	180 Deg. Mag.
Sky/Lowest Cloud Condition: Unknown			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL	Visibility: 10	SM	Altimeter: 29.00 "Hg
Temperature: 21 °C	Dew Point: 10 °C	Wind Direction: 300		Density Altitude: Ft.	
Wind Speed: 16	Gusts: 19	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0	SM	Intensity of Precipitation: Unknown		
Restrictions to Visibility: None					
Type of Precipitation: None					

<b>Accident Information</b>		
Aircraft Damage: None	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
<b>- Injury Summary Matrix</b>	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				40	40
- TOTAL ABOARD -		1		44	45
Other Ground	0	0	0		0
- GRAND TOTAL -	0	1	0	44	45

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National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: NYC99LA240

Occurrence Date: 09/30/1999

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

PAUL COX

Additional Persons Participating in This Accident/Incident Investigation:

JOHN BROWN  
FAA/FSDO  
DULLES, VA