
Turbulence injury, Boeing 747-400, G-BNLS, April 1, 2002

Micro-summary: This Boeing 747-400 had an encounter with turbulence, injuring one passenger.

Event Date: 2002-04-01 at 2005 EST


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


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


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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: IAD02LA039		Aircraft Registration Number: G-BNLS	
		Occurrence Date: 04/01/2002		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Atlantic Ocean		State AO	Zip Code	Local Time 2005	Time Zone EST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 747-400		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 April 1, 2002, about 2005 eastern standard time, a Boeing 747-400, G-BNLS, operated by British Airways as flight 214, was not damaged when it encountered turbulence shortly after takeoff from Boston/General Edward Lawrence Logan International Airport (BOS), Boston Massachusetts. The 2 certificated airline transport pilots, 15 flight attendants, and 196 passengers were not injured. One passenger sustained serious injuries. Visual meteorological conditions (VMC) prevailed and an instrument flight rules (IFR) flight plan was filed for the flight destined for London-Heathrow Airport (LHR), London, England. The scheduled international passenger flight was conducted under 14 CFR Part 129.</p> <p>In a written statement, the flight crew reported that 20 minutes after departure they encountered "moderate turbulence" while climbing through flight level (FL) 350, to their assigned altitude of FL 370. Several minutes later, they requested a descent from air traffic control to FL 330 to maneuver around the turbulence. During the descent, a flight attendant informed the flight crew that a passenger fell during the turbulence encounter and broke her right ankle. The flight crew then initiated a return to Boston, and landed without further incident. After landing, the passenger was transported to the hospital and the airplane was inspected for damage. When no damage was observed, the flight departed again at 2214, and continued to London uneventfully.</p> <p>The flight crew reported that windshear advisories had been issued at Boston prior to their departure; however, no turbulence was forecasted for their route of flight. The seat belt sign was illuminated for the entire flight.</p> <p>According to flight attendant interviews conducted by British Airways, the flight conditions were described as "fairly smooth" and the seat belt sign was illuminated as they prepared for the in-flight service. About 20-30 minutes into the flight, the airplane "shook briefly" and experienced a "sudden jolt." During the encounter, a passenger from seat 17J was returning to her seat from the lavatory, when she fell and was injured. A flight attendant administered first aid to the passenger and notified the flight crew of the injury. The flight crew then informed the flight attendants and passengers that the flight would be returning to Boston.</p> <p>The weather reported at Boston, at 1954, included wind from 270 degrees at 18 knots, gusting to 31 knots, 10 miles visibility, clear skies, temperature 8 degrees Celsius, dewpoint -3 degrees Celsius, and altimeter setting 29.80 in Hg.</p>					
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: IAD02LA039				
		Occurrence Date: 04/01/2002				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name		Airport ID:	Airport Elevation Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown						
Runway Surface Condition: Unknown						
Type Instrument Approach: Unknown						
VFR Approach/Landing: Unknown						
Aircraft Information						
Aircraft Manufacturer Boeing		Model/Series 747-400		Serial Number 24629		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 291	Certified Max Gross Wt. 270000 LBS		Number of Engines: 4	
Engine Type: Turbo Jet		Engine Manufacturer: Rolls-Royce		Model/Series: RB211-524H	Rated Power: 59500 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 03/2002	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? No		
Owner/Operator Information						
Registered Aircraft Owner BRITISH AIRWAYS		Street Address				
		City London		State	Zip Code	
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: BRAF		
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Foreign Operation						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 129: Foreign						
Type of Flight Operation Conducted: Scheduled; International; Passenger/Cargo						
FACTUAL REPORT - AVIATION						

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: IAD02LA039
	Occurrence Date: 04/01/2002
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State	Date of Birth On File	Age 48
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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

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s):

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Unknown	Medical Cert. Status:	Date of Last Medical Exam:
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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	13200	3500								
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
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 Boston	State MA	Airport Identifier BOS	Departure Time 1920	Time Zone EST
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Destination London	State	Airport Identifier LHR	
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Type of Clearance: IFR

Type of Airspace: Class E

Weather Information

Source of Briefing: Company

Method of Briefing: In Person

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
BHB	1955	EDT	83 Ft. MSL	NM	Deg. Mag.

Sky/Lowest Cloud Condition: _____ Ft. AGL Condition of Light: **Night**

Lowest Ceiling: **Broken** 4300 Ft. AGL Visibility: 10 SM Altimeter: 29.52 "Hg

Temperature: 5 °C Dew Point: 3 °C Wind Direction: 230 Density Altitude: -717 Ft.

Wind Speed: 7 Gusts: Weather Conditions at Accident Site: **Visual Conditions**

Visibility (RVR): _____ Ft. Visibility (RVV) _____ SM Intensity of Precipitation: _____

Restrictions to Visibility: **None**

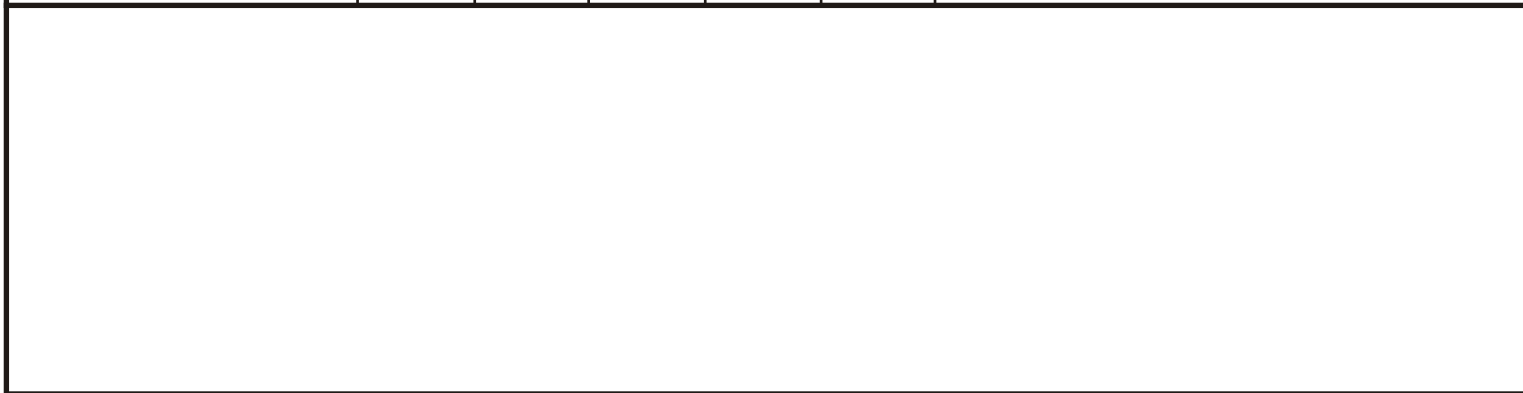
Type of Precipitation: **None**

Accident Information

Aircraft Damage: **None** Aircraft Fire: **None** Aircraft Explosion: **None**

Classification: **Foreign Reg./Foreign 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					
Other Crew				15	15
Passengers		1		196	197
- TOTAL ABOARD -		1		213	214
Other Ground					
- GRAND TOTAL -		1		213	214



National Transportation Safety Board

FACTUAL REPORT

AVIATION



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Occurrence Date: 04/01/2002

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Jill M. Andrews

Additional Persons Participating in This Accident/Incident Investigation:

Jack Donahue
Aviation Safety Inspector
Federal Aviation Administration
Boston, MA 02128