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## Turbulence injury, Boeing 747-122, November 1, 1995

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**Micro-summary:** This Boeing 747-122 experienced severe turbulence in cruise, breaking a passenger's leg.

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**Event Date:** 1995-11-01 at 1515 GMT


**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!***
  3. Reports may or may not represent reality. Many many non-scientific factors go into an investigation, including the magnitude of the event, the experience of the investigator, the political climate, relationship with the regulatory authority, technological and recovery capabilities, etc. It is recommended that the reader review all reports analytically. Even a "bad" report can be a very useful launching point for learning.
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		NTSB ID: LAX96LA035		Aircraft Registration Number: N4714U	
		Occurrence Date: 11/01/1995		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place PACIFIC OCEAN		State PO	Zip Code	Local Time 1515	Time Zone GMT
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer BOEING		Model/Series 747-122		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 November 1, 1995, at 1515 UTC, one passenger was seriously injured onboard United Airlines flight 830, during a moderate turbulence encounter over the Pacific Ocean. The aircraft, a Boeing 747-122, N4714U, was operated by United Airlines, Inc., as a regularly scheduled non-stop international passenger flight from Tokyo, Japan, to Honolulu, Hawaii. The accident occurred in international airspace between latitudes 28 - 33 degrees north and at longitude 173 degrees west, while the aircraft was in cruise at flight level 350. The aircraft was not damaged. The remaining 279 passengers, 18 flight attendants, and flight deck crew of three were not injured. The flight originated from Narita Airport, Tokyo, Japan, at 1037 UTC and subsequently landed at Honolulu, Hawaii, at 1721 UTC.</p> <p>Reports provided by the flight crew to the United Airlines Flight Safety Department stated that at the time of the accident the aircraft was in clear air. Convective activity associated with a front was visible in the distance ahead and on radar. The flight crew characterized the radar return as a solid yellow band across their flight course with an area of green return to the south. The flight crew elected to alter course to the south and follow a preceding Japan Airlines flight through the area of lighter returns. In response to a report of moderate turbulence from the preceding aircraft, the flight crew turned on the fasten seat belt sign about 1500 hours. Ten minutes later, because of turbulence, the cabin attendants were instructed to take their seats.</p> <p>During the period that the flight attendants were seated and the flight was encountering light turbulence, a female passenger in the upper deck lounge left her seat to go to the lavatory. According to reports by the flight attendants and other passenger witnesses, the flight attendants called to the English-speaking, American passenger to remain seated, but she declined and continued to the lavatory. While returning to her seat, moderate turbulence was encountered and the passenger fell in the aisle. The passenger complained of pain in her right leg and flight attendants, assisted by the second officer, immobilized her leg prior to helping her to a nearby seat. Two medical doctors aboard the flight talked with the passenger and paramedic personnel met the flight in Honolulu. Subsequent examination revealed multiple fractures of the passenger's right leg.</p>					
FACTUAL REPORT - AVIATION					
Page 1					

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: LAX96LA035			
		Occurrence Date: 11/01/1995			
		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: None					
<b>Aircraft Information</b>					
Aircraft Manufacturer BOEING		Model/Series 747-122		Serial Number 19876	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 413	Certified Max Gross Wt.	750000 LBS	Number of Engines: 4	
Engine Type: Turbo Fan	Engine Manufacturer: P&W	Model/Series: JT9D-7AH	Rated Power: 44000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 01/1995	Time Since Last Inspection 2404 Hours	Airframe Total Time 14672 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner UNITED AIRLINES, INC.		Street Address P.O. 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; International; Passenger Only					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: LAX96LA035
	Occurrence Date: 11/01/1995
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 56
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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): None

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	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: 06/1995
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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	18137	2123								
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days		67								
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used?	Toxicology Performed? No	Second Pilot? Yes
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: IFR

Departure Point NARITA	State OF	Airport Identifier RJAA	Departure Time 1037	Time Zone GMT
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Destination HONOLULU	State HI	Airport Identifier PHNL	
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Type of Clearance: IFR

Type of Airspace: Class A

**Weather Information**

Source of Briefing: Company

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: LAX96LA035
	Occurrence Date: 11/01/1995
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**Weather Information**

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
	0000		0 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Unknown			0 Ft. AGL	Condition of Light: Night/Dark	
Lowest Ceiling: Unknown			0 Ft. AGL	Visibility: 0 SM	Altimeter: "Hg
Temperature: °C	Dew Point: °C	Wind Direction:		Density Altitude: Ft.	
Wind Speed:	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility:					
Type of Precipitation:					

**Accident Information**

Aircraft Damage: None	Aircraft Fire: None	Aircraft Explosion: None
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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				1	1
Cabin Attendants				18	18
Other Crew					
Passengers		1		279	280
- TOTAL ABOARD -		1		300	301
Other Ground	0	0	0		0
- GRAND TOTAL -	0	1	0	300	301

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: LAX96LA035

Occurrence Date: 11/01/1995

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

RICHARD B. PARKER

Additional Persons Participating in This Accident/Incident Investigation:

EDWARD RHEAM  
FAA - SAN FRANCISCO IFO  
SAN FRANCISCO, CA 94010