
Unexplained in-flight physiological complaints, Boeing 737-3B7, September 21, 1993

Micro-summary: Occupants of this Boeing 737-3B7 experienced symptoms similar to hypoxia.


Event Date: 1993-09-21 at 1017 EST

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

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

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		NTSB ID: CHI93IA372		Aircraft Registration Number: N527AU	
		Occurrence Date: 09/21/1993		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place INDIANAPOLIS		State IN	Zip Code 46241	Local Time 1017	Time Zone EST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer BOEING		Model/Series 737-3B7		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 21, 1993, at 1017 eastern standard time (EST), a Boeing 737-3B7, N527AU, operated by USAir as Flight 1614, and piloted by an ATP certificated flight crew, diverted from its scheduled route between Philadelphia, Pennsylvania, and Kansas City, Missouri, to Indianapolis, Indiana, after five airplane occupants reported hypoxic symptoms. Visual meteorological conditions prevailed at the time of the incident. The 14 CFR Part 121 flight had been operating on an IFR flight plan. The airplane was not damaged. The flight crew and passengers reported no injuries. The flight departed Philadelphia, Pennsylvania, at 0740 EST.</p> <p>The captain of the flight stated, in his written account of the incident, that "... one of the rear flight attendants came into the cockpit and complained that she felt dizzy. She (the flight attendant) said that the three rear F/A's felt the same way." Oxygen was administered to the flight attendants and they returned to their duties. The captain stated he directed the first officer to go into the cabin and investigate the situation.</p> <p>The first officer returned to the cockpit and reported he was not able to identify what was causing the flight attendants symptoms.</p> <p>The first officer stated he "was experiencing a slight headache which (he) previously did not have," upon his return to the cockpit. The captain stated the first officer said "... a few of the 81 passengers were experiencing the same symptoms." The flight attendants reentered the cockpit on an individual basis and showed the two pilots their fingernails which were turning blue. The captain stated he requested an air traffic control clearance for an unscheduled stop at Indianapolis, Indiana. Upon landing the captain requested the crash, fire, rescue (CFR) units to check the cabin for carbon monoxide (CO). The captain's statement does not show whether or not the CO testing was accomplished by the CFR personnel.</p> <p>The flight attendants and four passengers were taken to a hospital in Indianapolis, Indiana. All were checked for CO poisoning with negative results. Once of the flight attendants stated she had been determined to have "...inhaled toxic fumes of unknown origin." The written statements of the flight attendants are appended to this report. The passenger's hospital medical reports stated: "Possible toxic inhalational exposure." These reports were provided to the NTSB by USAir.</p> <p>The passengers and flight attendants were seated near the rear section of the airplane. According to the company's engineering report on the incident, no smoke or fumes were reported by the first officer, flight attendants, or passengers. The report states: "...the aircraft was run on the ground with the FAA and the local fire department on board. Oxygen percentage was at a normal 20.5%, and all readings were within established parameters. The aircraft was checked for possible fuel, hydraulic fluid, halon, and rain repellent leaks. The baggage was examined to ensure that no dangerous chemicals had inadvertently gotten into the cargo compartment and leaked. There was no evidence of any leakage."</p>					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

SAFETY BOARD


NTSB ID: CHI93IA372


Occurrence Date: 09/21/1993

Occurrence Type: Incident

Narrative (Continued)

The aircraft was ferried to the company's maintenance facility at Pittsburgh, Pennsylvania. During the flight the cabin air was checked for organic vapors. The maintenance report states: "No unusual readings were noted." The maintenance report is appended to this report. USAir reported that the airplane has not had a similar event since the original one on September 21, 1993.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI93IA372			
		Occurrence Date: 09/21/1993			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
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: Precautionary Landing					
Aircraft Information					
Aircraft Manufacturer BOEING		Model/Series 737-3B7		Serial Number 23842	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt.	220000 LBS	Number of Engines: 2	
Engine Type: Turbo Fan	Engine Manufacturer: GE	Model/Series: CF-56-3B2	Rated Power:		
- Aircraft Inspection Information					
Type of Last Inspection Annual	Date of Last Inspection 09/1993	Time Since Last Inspection Hours	Airframe Total Time 18151 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner FIRST NAT'S BANK OF BOSTON		Street Address 100 FEDERAL ST			
		City BOSTON	State MA	Zip Code 02110	
Operator of Aircraft USAIR		Street Address 2345 CRYSTAL DRIVE			
		City ARLINGTON	State VA	Zip Code 22227	
Operator Does Business As:			Operator Designator Code: USAA		
- 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: CHI93IA372
	Occurrence Date: 09/21/1993
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 49
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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): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Unknown	Medical Cert. Status: Unknown	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	20029	2983								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	131									
Last 30 Days										
Last 24 Hours										

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

Type of Flight Plan Filed: IFR

Departure Point PHILADELPHIA	State PA	Airport Identifier PHI	Departure Time 0000	Time Zone
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Destination KANSAS CITY	State MO	Airport Identifier MCI	
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Type of Clearance: IFR

Type of Airspace: Class E

Weather Information

Source of Briefing: Commercial Weather Service

Method of Briefing:

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
IND	0952	EDT	797 Ft. MSL	0 NM	0 Deg. Mag.

Sky/Lowest Cloud Condition: Unknown 1600 Ft. AGL Condition of Light: Day

Lowest Ceiling: Overcast 1600 Ft. AGL Visibility: 7 SM Altimeter: 30.00 "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

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				4	4
Other Crew					
Passengers				82	82
- TOTAL ABOARD -				88	88
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	88	88

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: CHI93IA372

Occurrence Date: 09/21/1993

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

FRANK S. GATTOLIN

Additional Persons Participating in This Accident/Incident Investigation:

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INDIANAPOLIS, IN 46241