



Aviation Investigation Final Report

Location: BUFFALO, New York **Accident Number:** CHI91LA115

Date & Time: Registration: N7449U March 23, 1991, 18:15 Local

Aircraft: BOEING 727-222 Aircraft Damage: None

1 Serious, 3 Minor, 39 **Defining Event:** Injuries:

None

Flight Conducted Under: Part 121: Air carrier - Scheduled

Analysis

THE AIRCRAFT WAS IN CRUISE FLIGHT AT FL 310 WHEN IT ENCOUNTERED CLEAR AIR TURBULENCE. A FLIGHT ATTENDANT IN THE AFT GALLEY WAS SERIOUSLY INJURED. TWO FLIGHT ATTENDANTS IN THE CABIN, AND A PASSENGER WHO WAS IN THE LAVATORY RECEIVED MINOR INJURIES. THE WEATHER BRIEFING CONTAINED A FORECAST FOR THE POSSIBILITY OF TURBULENCE. THE FLIGHT WAS DIVERTED TO AN ALTERNATE AIRPORT TO PROVIDE MEDICAL ASSISTANCE TO THE INJURED PERSONS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A CLEAR AIR TURBULENCE ENCOUNTER.

Findings

Occurrence #1: ALTITUDE DEVIATION, UNCONTROLLED

Phase of Operation: CRUISE

Findings

1. (C) WEATHER CONDITION - TURBULENCE, CLEAR AIR

Factual Information

Pilot Information

| Certificate: | Airline transport; Flight instructor | Age: | 59,Male |
|---------------------------|---|-----------------------------------|------------------|
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Unknown |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane multi-engine; Airplane single-engine | Toxicology Performed: | No |
| Medical Certification: | Class 1 Valid Medicalno waivers/lim. | Last FAA Medical Exam: | January 31, 1991 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 16033 hours (Total, all aircraft), 10200 hours (Pilot In Command, all aircraft), 151 hours (Last 90 days, all aircraft), 67 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft) | | |

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Aircraft and Owner/Operator Information

| Aircraft Make: | BOEING | Registration: | N7449U |
|-------------------------------|-------------------------|-----------------------------------|--------------------|
| Model/Series: | 727-222 727-222 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Transport | Serial Number: | 21903 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 159 |
| Date/Type of Last Inspection: | January 2, 2000 Unknown | Certified Max Gross Wt.: | 190500 lbs |
| Time Since Last Inspection: | | Engines: | 3 Turbo fan |
| Airframe Total Time: | | Engine Manufacturer: | P&W |
| ELT: | | Engine Model/Series: | JT8D-15 |
| Registered Owner: | | Rated Power: | 15500 Lbs thrust |
| Operator: | UNITED AIRLINES | Operating Certificate(s) Held: | Flag carrier (121) |
| Operator Does Business As: | | Operator Designator Code: | UALA |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Dusk |
|----------------------------------|------------------------------|--------------------------------------|-------------------|
| Observation Facility, Elevation: | BUF ,800 ft msl | Distance from Accident Site: | 30 Nautical Miles |
| Observation Time: | 17:50 Local | Direction from Accident Site: | 220° |
| Lowest Cloud Condition: | Scattered / 4200 ft AGL | Visibility | 15 miles |
| Lowest Ceiling: | Overcast / 5500 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 15 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 230° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29 inches Hg | Temperature/Dew Point: | 9°C / 6°C |
| Precipitation and Obscuration: | No Obscuration; No Precipita | ation | |
| Departure Point: | MANCHESTER , NH (MHT) | Type of Flight Plan Filed: | IFR |
| Destination: | CHICAGO , IL (ORD) | Type of Clearance: | IFR |
| Departure Time: | 17:25 Local | Type of Airspace: | |

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Airport Information

| Airport: | NONE | Runway Surface Type: |
|----------------------|------|---------------------------|
| Airport Elevation: | | Runway Surface Condition: |
| Runway Used: | 0 | IFR Approach: |
| Runway Length/Width: | | VFR Approach/Landing: |

Wreckage and Impact Information

| Crew Injuries: | 1 Serious, 2 Minor, 4 None | Aircraft Damage: | None |
|------------------------|-----------------------------|-------------------------|---------------------------|
| Passenger Injuries: | 1 Minor, 35 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious, 3 Minor, 39 None | Latitude, Longitude: | 42.930675,-78.750335(est) |

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Administrative Information

| Investigator In Charge (IIC): | Doub, Mark | |
|-----------------------------------|--|--|
| Additional Participating Persons: | ROBERT MCCOLLOUGH; DETROIT , MI | |
| Original Publish Date: | February 8, 1993 | |
| Last Revision Date: | | |
| Investigation Class: | <u>Class</u> | |
| Note: | | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=15029 | |

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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