



# National Transportation Safety Board Aviation Accident Final Report

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|                                |   |                         |            |
|--------------------------------|---|-------------------------|------------|
| <b>Location:</b>               | WEST PATERSON, NJ                       | <b>Accident Number:</b> | ATL88MA184 |
| <b>Date &amp; Time:</b>        | 05/24/1988, 0316 EDT                    | <b>Registration:</b>    | N500RW     |
| <b>Aircraft:</b>               | LEARJET 35A                             | <b>Aircraft Damage:</b> | Destroyed  |
| <b>Defining Event:</b>         |   | <b>Injuries:</b>        | 4 Fatal    |
| <b>Flight Conducted Under:</b> | Part 91: General Aviation - Positioning |                         |            |

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## Analysis

WITNESSES RPTED A NORMAL TAKEOFF. RADAR INDICATED THE ACFT TURNED RIGHT AS CLEARED AND BEGAN CRUISE AT 1900 FT, HDG NW AT 235 KTS. 65 SECS AFTER CALLING CLEAR OF THE CONTROL ZONE THE ACFT'S RADAR TRACK ENDED. THE ACFT WAS FRAGMENTED BY THE IMPACT WITH ALL FLT CONTROL SURFACES AND ACFT EXTREMITIES FOUND AT THE IMPACT SITE. PITCH TRIM WAS FOUND IN THE NORMAL CRUISE SETTING WITH GEAR, FLAPS, AND SPOILERS IN THE RETRACTED POSITION. EXAM OF THE ENGS INDICATED OPERATION AT IMPACT. ACFT STRUCK THE TERRAIN IN APPROX 80 DEG NOSE DOWN, WNGS LEVEL ATTITUDE & HEADING OPPOSITE TO THE PREVIOUS DIRECTION OF FLT. IN FLIGHT SIMULATOR TESTS, WITH THE ACFT INITIALLY IN LEVEL FLT AT 1900 FEET AND THEN ROLLED INVERTED AND THE PITCH CONTROL MOVED AFT, THE ACFT ATTITUDE WAS SIMILAR TO THE ATTITUDE AT IMPACT. THERE WERE TWO UNAUTH PAX ON BOARD, ONE WAS THE COPILOT'S WIFE. THE IMPACT POINT WAS IN A VERY SMALL REGION OF UNCONTROLLED AIRSPACE VERY NEAR THE COPILOT'S AND RELATIVE'S HOMES. THE COPILOT WAS NEW TO JET OPERATIONS. THE ACFT DEPARTED WITH SEVERAL DISCREPANCIES UNCLEARED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: MANEUVERING

### Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (C) MANEUVER - ATTEMPTED - PILOT IN COMMAND
3. (C) JUDGMENT - POOR - PILOT IN COMMAND
4. (C) ALTITUDE - MISJUDGED - PILOT IN COMMAND
5. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND
6. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - COPILOT/SECOND PILOT
7. OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - ATTEMPTED - COMPANY MAINTENANCE PERSONNEL

## Factual Information

### Pilot Information

|                                  |  |  |            |
|----------------------------------|--|--|------------|
| <b>Certificate:</b>              | Airline Transport  | <b>Age:</b>                              | 36, Male   |
| <b>Airplane Rating(s):</b>       | Multi-engine Land; Single-engine Land  | <b>Seat Occupied:</b>                    | Left       |
| <b>Other Aircraft Rating(s):</b> |  | <b>Restraint Used:</b>                   |            |
| <b>Instrument Rating(s):</b>     | Airplane   | <b>Second Pilot Present:</b>             | Yes        |
| <b>Instructor Rating(s):</b>     | Airplane Multi-engine; Airplane Single-engine; Instrument Airplane   | <b>Toxicology Performed:</b>             | No         |
| <b>Medical Certification:</b>    | Class 1 Valid Medical--no waivers/lim.   | <b>Last FAA Medical Exam:</b>            | 05/02/1988 |
| <b>Occupational Pilot:</b>       |  | <b>Last Flight Review or Equivalent:</b> |            |
| <b>Flight Time:</b>              | 8910 hours (Total, all aircraft), 759 hours (Total, this make and model), 8047 hours (Pilot In Command, all aircraft), 114 hours (Last 90 days, all aircraft), 42 hours (Last 30 days, all aircraft) |  |            |

### Aircraft and Owner/Operator Information

|                                      |                                      |                                       |                          |
|--------------------------------------|--------------------------------------|---------------------------------------|--------------------------|
| <b>Aircraft Make:</b>                | LEARJET                              | <b>Registration:</b>                  | N500RW                   |
| <b>Model/Series:</b>                 | 35A 35A                              | <b>Aircraft Category:</b>             | Airplane                 |
| <b>Year of Manufacture:</b>          |                                      | <b>Amateur Built:</b>                 | No                       |
| <b>Airworthiness Certificate:</b>    | Transport                            | <b>Serial Number:</b>                 | 35A                      |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle               | <b>Seats:</b>                         | 9                        |
| <b>Date/Type of Last Inspection:</b> | 04/25/1988, Continuous Airworthiness | <b>Certified Max Gross Wt.:</b>       | 17000 lbs                |
| <b>Time Since Last Inspection:</b>   | 45 Hours                             | <b>Engines:</b>                       | 2 Turbo Fan              |
| <b>Airframe Total Time:</b>          | 4735 Hours                           | <b>Engine Manufacturer:</b>           | GARRETT                  |
| <b>ELT:</b>                          | Not installed                        | <b>Engine Model/Series:</b>           | TFE-731-2-2B             |
| <b>Registered Owner:</b>             | AIR SRV INC.                         | <b>Rated Power:</b>                   | 3500 lbs                 |
| <b>Operator:</b>                     | UNITED EXECUTIVE JET, INC.           | <b>Operating Certificate(s) Held:</b> | On-demand Air Taxi (135) |
| <b>Operator Does Business As:</b>    | JETCORP                              | <b>Operator Designator Code:</b>      | DELA                     |

## Meteorological Information and Flight Plan

|                                  |                         |   |                  |
|----------------------------------|-------------------------|---|------------------|
| Conditions at Accident Site:     | Visual Conditions       | Condition of Light:                     | Night/Dark       |
| Observation Facility, Elevation: | TEB, 9 ft msl           | Distance from Accident Site:            | 7 Nautical Miles |
| Observation Time:                | 0300 EDT                | Direction from Accident Site:           | 120°             |
| Lowest Cloud Condition:          | Scattered / 2500 ft agl | Visibility                              | 15 Miles         |
| Lowest Ceiling:                  | Broken / 8000 ft agl    | Visibility (RVR):                       | 0 ft             |
| Wind Speed/Gusts:                | 4 knots /               | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                  | 220°                    | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:               | 29 inches Hg            | Temperature/Dew Point:                  | 20° C / 16° C    |
| Precipitation and Obscuration:   |                         |   |                  |
| Departure Point:                 | TETERBORO, NJ (TEB)     | Type of Flight Plan Filed:              | None             |
| Destination:                     | MORRISTOWN, NJ (MMU)    | Type of Clearance:                      | None             |
| Departure Time:                  | 0312 EDT                | Type of Airspace:                       | Class G          |

## Airport Information

|                      |                  |                           |         |
|----------------------|------------------|---------------------------|---------|
| Airport:             | TETERBORO (TEB)  | Runway Surface Type:      | Asphalt |
| Airport Elevation:   | 9 ft             | Runway Surface Condition: | Dry     |
| Runway Used:         | 19               | IFR Approach:             | None    |
| Runway Length/Width: | 7000 ft / 150 ft | VFR Approach/Landing:     | None    |

## Wreckage and Impact Information

|                     |         |                      |           |
|---------------------|---------|----------------------|-----------|
| Crew Injuries:      | 2 Fatal | Aircraft Damage:     | Destroyed |
| Passenger Injuries: | 2 Fatal | Aircraft Fire:       | On-Ground |
| Ground Injuries:    | N/A     | Aircraft Explosion:  | None      |
| Total Injuries:     | 4 Fatal | Latitude, Longitude: |           |

## Administrative Information

|                                   |  |              |            |
|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC):     | PRESTON E HICKS  | Report Date: | 08/04/1989 |
| Additional Participating Persons: |  |              |            |
| Publish Date:                     |  |              |            |
| Investigation Docket:             | NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> . |              |            |

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).