



# National Transportation Safety Board Aviation Accident Final Report

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|-------------------------|----------------------|-------------------------|------------|
| <b>Location:</b>        | OAK GROVE, PA        | <b>Accident Number:</b> | MIA89MA023 |
| <b>Date &amp; Time:</b> | 11/02/1988, 1013 EST | <b>Registration:</b>    | N44        |
| <b>Aircraft:</b>        | ROCKWELL 1121A       | <b>Aircraft Damage:</b> | Destroyed  |
| <b>Defining Event:</b>  |                      | <b>Injuries:</b>        | 3 Fatal    |

**Flight Conducted Under:** Part 91: General Aviation -

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## Analysis

ACFT ENTERED AN AREA OF FCST MOD ICING. ICE DETECTION SYS HAD BEEN INTRMPLY INOP. THE ACFT ENTERED HOLDING IN ICING CONDWHILE CKG FLT INSP EQUIP. EVIDENCE INDICATED CREW NOTED ICE ACCRETION, ACTIVATED SURFACE DE-ICE SYS, ICE BROKE LOOSE AND ENTERED ENG INTAKES. BOTH ENGS FLAMED OUT. DRG EMERG DESCENT CREW INIT RE-STARTS, BUT NEITHER ENG WOULD SUSTAIN PWR. CREW RQSTD VECTORS TO MORE DISTANT AIRPORT. BOTH PLTS WERE SEEN DRINKING PREV NIGHT. C/P HAD RECENTLY LOST DRIVERS LICENSE FOR DUI. CAPT HAD DECIDED TO RETIRE THAT DAY. C/P HAD WORKED IN FLT OPS 3 DAYS IN 8 WKS AND HAD LMTD TRNG IN FLTINSPECTION. BOTH PLTS HAD PERSONAL STRESSES WHICH MAY HAVE INFLUENCED PERFORMANCE. CAPT'S CONTAMINATED THORACIC BLOOD REVEALED 0.057% ALCOHOL. PUTRIFICATION WOULD ACCT FOR PART OF ALCOHOL LEVEL. C/P HAD TRACE ALCOHOL IN URINE ONLY. BOTH ENGS SHOWED COMPRESSOR FOD CONSISTENT WITH ICE INGESTION. NO OTHER ACFT SYS OR ENG MALFUNCTION FOUND.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT IN COMMAND TO OBSERVE THE RAPID ACCRETION OF ICE ON THE AIRPLANE DUE TO HIS ATTENTION BEING DIVERTED.

## Findings

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER  
Phase of Operation: MANEUVERING - HOLDING(IFR)

### Findings

1. (F) WEATHER CONDITION - ICING CONDITIONS
2. (C) ICE/FROST REMOVAL FROM AIRCRAFT - DELAYED - PILOT IN COMMAND
3. (F) INATTENTIVE - PILOT IN COMMAND
4. (F) PSYCHOLOGICAL CONDITION - PILOT IN COMMAND
5. (F) PSYCHOLOGICAL CONDITION - COPILOT/SECOND PILOT
6. (F) INADEQUATE INITIAL TRAINING - COPILOT/SECOND PILOT
7. INADEQUATE SURVEILLANCE,INSUFFICIENT STAFF - FAA(ORGANIZATION)

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Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: MANEUVERING - HOLDING(IFR)

### Findings

8. (F) FUSELAGE - ICE
9. ICE/FROST REMOVAL FROM AIRCRAFT - PERFORMED
10. (C) COMPRESSOR ASSEMBLY, BLADE - FOREIGN OBJECT DAMAGE

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - EMERGENCY

### Findings

11. OBJECT - TREE(S)

## Factual Information

### Pilot Information

|                                  |  |  |                            |
|----------------------------------|--|--|----------------------------|
| <b>Certificate:</b>              | Airline Transport; Commercial  | <b>Age:</b>                              | 64, Male                   |
| <b>Airplane Rating(s):</b>       | Multi-engine Land; Single-engine Land  | <b>Seat Occupied:</b>                    | Left                       |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   | Seatbelt, Shoulder harness |
| <b>Instrument Rating(s):</b>     | Airplane   | <b>Second Pilot Present:</b>             | Yes                        |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | Yes                        |
| <b>Medical Certification:</b>    | Class 1 Valid Medical--w/ waivers/lim.   | <b>Last FAA Medical Exam:</b>            | 07/18/1988                 |
| <b>Occupational Pilot:</b>       |  | <b>Last Flight Review or Equivalent:</b> |                            |
| <b>Flight Time:</b>              | 16957 hours (Total, all aircraft), 4428 hours (Total, this make and model), 13000 hours (Pilot In Command, all aircraft), 94 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft) |  |                            |

### Aircraft and Owner/Operator Information

|                                      |                                      |                                       |             |
|--------------------------------------|--------------------------------------|---------------------------------------|-------------|
| <b>Aircraft Make:</b>                | ROCKWELL                             | <b>Registration:</b>                  | N44         |
| <b>Model/Series:</b>                 | 1121A 1121A                          | <b>Aircraft Category:</b>             | Airplane    |
| <b>Year of Manufacture:</b>          |                                      | <b>Amateur Built:</b>                 | No          |
| <b>Airworthiness Certificate:</b>    | Transport                            | <b>Serial Number:</b>                 | 130         |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle               | <b>Seats:</b>                         | 3           |
| <b>Date/Type of Last Inspection:</b> | 09/26/1988, Continuous Airworthiness | <b>Certified Max Gross Wt.:</b>       | 18500 lbs   |
| <b>Time Since Last Inspection:</b>   | 121 Hours                            | <b>Engines:</b>                       | 2 Turbo Jet |
| <b>Airframe Total Time:</b>          | 10519 Hours                          | <b>Engine Manufacturer:</b>           | GE          |
| <b>ELT:</b>                          | Installed, not activated             | <b>Engine Model/Series:</b>           | CJ-610-5    |
| <b>Registered Owner:</b>             | FEDERAL AVIATION ADMIN.              | <b>Rated Power:</b>                   | 2950 hp     |
| <b>Operator:</b>                     | FEDERAL AVIATION ADMIN.              | <b>Operating Certificate(s) Held:</b> | None        |

## Meteorological Information and Flight Plan

|                                  |                       |   |                  |
|----------------------------------|-----------------------|---|------------------|
| Conditions at Accident Site:     | Instrument Conditions | Condition of Light:                     | Day              |
| Observation Facility, Elevation: | LBE, 1185 ft msl      | Distance from Accident Site:            | 7 Nautical Miles |
| Observation Time:                | 1012 EST              | Direction from Accident Site:           | 68°              |
| Lowest Cloud Condition:          | Unknown / 0 ft agl    | Visibility                              | 6 Miles          |
| Lowest Ceiling:                  | Broken / 800 ft agl   | Visibility (RVR):                       | 0 ft             |
| Wind Speed/Gusts:                | 10 knots /            | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                  | 250°                  | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:               | 29 inches Hg          | Temperature/Dew Point:                  | 4° C / 2° C      |
| Precipitation and Obscuration:   |                       |   |                  |
| Departure Point:                 | PITTSBURGH, PA (AGC)  | Type of Flight Plan Filed:              | IFR              |
| Destination:                     | LATROBE, PA (LBE)     | Type of Clearance:                      | IFR              |
| Departure Time:                  | 0942 EST              | Type of Airspace:                       |                  |

## Airport Information

|                      |                        |                           |         |
|----------------------|------------------------|---------------------------|---------|
| Airport:             | WESTMORELAND CO. (LBE) | Runway Surface Type:      | Asphalt |
| Airport Elevation:   | 1185 ft                | Runway Surface Condition: | Wet     |
| Runway Used:         | 23                     | IFR Approach:             | ILS     |
| Runway Length/Width: | 5501 ft / 100 ft       | VFR Approach/Landing:     |         |

## Wreckage and Impact Information

|                     |         |                      |           |
|---------------------|---------|----------------------|-----------|
| Crew Injuries:      | 3 Fatal | Aircraft Damage:     | Destroyed |
| Passenger Injuries: | N/A     | Aircraft Fire:       | On-Ground |
| Ground Injuries:    | N/A     | Aircraft Explosion:  | On-Ground |
| Total Injuries:     | 3 Fatal | Latitude, Longitude: |           |

## Administrative Information

|                                   |  |              |            |
|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC):     | ANDREW A ALSTON  | Report Date: | 01/16/1990 |
| 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:pubinq@ntsb.gov">pubinq@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](#).