



# National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|--------------------------------------|-------------------------|--------------------|
| <b>Location:</b>               | PINE CITY, MN                        | <b>Accident Number:</b> | CHI90FA252         |
| <b>Date &amp; Time:</b>        | 09/02/1990, 1217 CDT                 | <b>Registration:</b>    | N733CH             |
| <b>Aircraft:</b>               | CESSNA 172N                          | <b>Aircraft Damage:</b> | Destroyed          |
| <b>Defining Event:</b>         |                                      | <b>Injuries:</b>        | 1 Fatal, 2 Serious |
| <b>Flight Conducted Under:</b> | Part 91: General Aviation - Personal |                         |                    |

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## Analysis

AFTER COMPLETING A X-COUNTRY FLT, THE PLT TOOK OFF WITH 2 PSGRS ABOARD TO FLY TO A NEARBY ARPT TO REFUEL. AFTER TAKING OFF FROM RWY 35, THE ENG LOST PWR. THE ACFT CRASHED ABT 1/4 MI NORTH OF THE RWY & TO THE LEFT OF THE RWY CENTERLINE. IMPACT OCCURRED IN A LEFT WING LOW ATTITUDE. THE ACFT CAME TO REST NOSE DOWN WITH THE TAIL BROKEN DOWN & TO THE RIGHT. ONLY ABT 7 0Z OF FUEL WAS FND IN THE ACFT. LATER, THE ENGE WAS SUCCESSFULLY RUN DURING AN OPNL CHECK. THE PLT HAD 3 HRS OF FLT TIME IN THIS MAKE & MODEL OF ACFT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S MISJUDGEMENT OF THE FUEL SUPPLY, AND HIS FAILURE TO MAINTAIN ADEQUATE AIRSPEED. A FACTOR WAS THE PILOT'S LACK OF EXPERIENCE IN THE MAKE AND MODEL OF AIRCRAFT.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. FLUID,FUEL - EXHAUSTION
2. (C) FUEL SUPPLY - MISJUDGED - PILOT IN COMMAND
3. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

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Occurrence #3: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: DESCENT - EMERGENCY

### Findings

4. (C) AIRSPEED(VSO) - NOT MAINTAINED - PILOT IN COMMAND
5. (C) STALL - INADVERTENT - PILOT IN COMMAND

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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

|                                  |   |  |                            |
|----------------------------------|---|--|----------------------------|
| <b>Certificate:</b>              | Private   | <b>Age:</b>                              | 20, Male                   |
| <b>Airplane Rating(s):</b>       | 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>     | None  | <b>Second Pilot Present:</b>             | No                         |
| <b>Instructor Rating(s):</b>     | None  | <b>Toxicology Performed:</b>             | Yes                        |
| <b>Medical Certification:</b>    | Class 3 Valid Medical--no waivers/lim.  | <b>Last FAA Medical Exam:</b>            | 09/15/1989                 |
| <b>Occupational Pilot:</b>       |   | <b>Last Flight Review or Equivalent:</b> |                            |
| <b>Flight Time:</b>              | 105 hours (Total, all aircraft), 3 hours (Total, this make and model), 45 hours (Pilot In Command, all aircraft), 49 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) |  |                            |

### Aircraft and Owner/Operator Information

|                                      |  |                                       |                 |
|--------------------------------------|--|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | CESSNA   | <b>Registration:</b>                  | N733CH          |
| <b>Model/Series:</b>                 | 172N 172N  | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |  | <b>Amateur Built:</b>                 | No              |
| <b>Airworthiness Certificate:</b>    | Normal   | <b>Serial Number:</b>                 | 17268187        |
| <b>Landing Gear Type:</b>            | Tricycle   | <b>Seats:</b>                         | 4               |
| <b>Date/Type of Last Inspection:</b> | 08/12/1990, 100 Hour                                   | <b>Certified Max Gross Wt.:</b>       | 2300 lbs        |
| <b>Time Since Last Inspection:</b>   | 81 Hours   | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 8544 Hours   | <b>Engine Manufacturer:</b>           | LYCOMING        |
| <b>ELT:</b>                          | Installed, activated, did not aid in locating accident | <b>Engine Model/Series:</b>           | O-320-H2AD      |
| <b>Registered Owner:</b>             | HAMMOND ENTERPRISES, INC.                              | <b>Rated Power:</b>                   | 160 hp          |
| <b>Operator:</b>                     | AERO CENTER ONE  | <b>Operating Certificate(s) Held:</b> | None            |
| <b>Operator Does Business As:</b>    |  | <b>Operator Designator Code:</b>      | ACWA            |

## Meteorological Information and Flight Plan

|                                  |                   |   |                   |
|----------------------------------|-------------------|---|-------------------|
| Conditions at Accident Site:     | Visual Conditions | Condition of Light:                     | Day               |
| Observation Facility, Elevation: | STC, 1024 ft msl  | Distance from Accident Site:            | 49 Nautical Miles |
| Observation Time:                | 1152 CDT          | Direction from Accident Site:           | 240°              |
| Lowest Cloud Condition:          | Clear / 0 ft agl  | Visibility                              | 15 Miles          |
| Lowest Ceiling:                  | None / 0 ft agl   | Visibility (RVR):                       | 0 ft              |
| Wind Speed/Gusts:                | 6 knots /         | Turbulence Type<br>Forecast/Actual:     | /                 |
| Wind Direction:                  | 100°              | Turbulence Severity<br>Forecast/Actual: | /                 |
| Altimeter Setting:               | 30 inches Hg      | Temperature/Dew Point:                  | 25° C / 15° C     |
| Precipitation and Obscuration:   |                   |   |                   |
| Departure Point:                 | (90D)             | Type of Flight Plan Filed:              | None              |
| Destination:                     | MORA, MN (19D)    | Type of Clearance:                      | None              |
| Departure Time:                  | 1216 CDT          | Type of Airspace:                       | Class G           |

## Airport Information

|                      |                      |                           |                |
|----------------------|----------------------|---------------------------|----------------|
| Airport:             | PINE CITY MUNI (90D) | Runway Surface Type:      | Grass/turf     |
| Airport Elevation:   | 971 ft               | Runway Surface Condition: | Dry            |
| Runway Used:         | 35                   | IFR Approach:             | None           |
| Runway Length/Width: | 2600 ft / 200 ft     | VFR Approach/Landing:     | Forced Landing |

## Wreckage and Impact Information

|                     |                    |                      |           |
|---------------------|--------------------|----------------------|-----------|
| Crew Injuries:      | 1 Serious          | Aircraft Damage:     | Destroyed |
| Passenger Injuries: | 1 Fatal, 1 Serious | Aircraft Fire:       | None      |
| Ground Injuries:    | N/A                | Aircraft Explosion:  | None      |
| Total Injuries:     | 1 Fatal, 2 Serious | Latitude, Longitude: |           |

## Administrative Information

|                                   |  |              |            |
|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC):     | JOHN R VALLASTER   | Report Date: | 11/23/1992 |
| 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](#).