



# **Aviation Investigation Final Report**

| Location:               | Cedar Rapids, Iowa                     | Accident Number: | CEN10CA100  |
|-------------------------|--|------------------|-------------|
| Date & Time:            | January 17, 2010, 19:50 Local          | Registration:    | N8584X      |
| Aircraft:               | Cessna P172D                           | Aircraft Damage: | Substantial |
| Defining Event:         | Controlled flight into terr/obj (CFIT) | Injuries:        | 1 Minor     |
| Flight Conducted Under: | Part 91: General aviation - Personal   |                  |             |

# Analysis

The non-instrument-rated pilot received a preflight weather briefing and delayed the flight as instrument meteorological conditions (IMC) were forecast for his route of flight until 1200. The briefer stated that the ceiling at the pilot's destination airport would probably be 2,000 feet overcast at best later in the day. At 1600, the pilot departed without obtaining another weather briefing, and received flight following during the course of the flight. The pilot reported that while en route he was going to stop for fuel; however, the destination airport was IMC so he decided to continue. Upon reaching his destination he discovered that the weather was IMC, so he diverted to a nearby airport, where he requested emergency assistance. The approach controller offered the nearest visual flight rules airport; however, the pilot stated that he did not have enough fuel to get there. The pilot informed the controller that he had practiced instrument landing system (ILS) approaches during a flight review. The controller gave the pilot vectors and a frequency for an ILS approach. The pilot stated that he attempted to fly the glideslope, but that he became confused as to whether he should climb or descend in order to center the glideslope needle. The airplane contacted the terrain about 2 miles east of the airport and sustained substantial damage to the fuselage and wings. The pilot had a total of 4 hours of instrument flight time.

## **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued visual flight into instrument meteorological conditions and his failure to maintain a proper glidepath during the approach. Contributing to the accident was the pilot's lack of instrument proficiency.

### Findings

| Environmental issues | Clouds - Effect on operation                     |
|----------------------|--|
| Environmental issues | Fog - Effect on operation                        |
| Personnel issues     | Weather planning - Pilot                         |
| Aircraft             | Altitude - Not attained/maintained               |
| Aircraft             | Fuel - Fluid level                               |
| Environmental issues | Below VFR minima - Decision related to condition |
| Personnel issues     | Total instrument experience - Pilot              |

# **Factual Information**

### History of Flight

| Enroute                     | VFR encounter with IMC                                  |
|-----------------------------|---|
| Approach-IFR final approach | Controlled flight into terr/obj (CFIT) (Defining event) |

#### **Pilot Information**

| Certificate:              | Private  | Age:                              | 64,Male           |
|---------------------------|--|-----------------------------------|-------------------|
| Airplane Rating(s):       | Single-engine land   | Seat Occupied:                    | Left              |
| Other Aircraft Rating(s): | None   | Restraint Used:                   |                   |
| Instrument Rating(s):     | None   | Second Pilot Present:             | No                |
| Instructor Rating(s):     | None   | Toxicology Performed:             | No                |
| Medical Certification:    | Class 3 With waivers/limitations   | Last FAA Medical Exam:            | November 12, 2008 |
| Occupational Pilot:       | No   | Last Flight Review or Equivalent: | November 3, 2009  |
| Flight Time:              | 840 hours (Total, all aircraft), 600 hours (Total, this make and model), 775 hours (Pilot In<br>Command, all aircraft), 12 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft),<br>4 hours (Last 24 hours, all aircraft) |                                   |                   |

### Aircraft and Owner/Operator Information

| Aircraft Make:                   | Cessna                  | Registration:                     | N8584X          |
|----------------------------------|-------------------------|-----------------------------------|-----------------|
| Model/Series:                    | P172D                   | Aircraft Category:                | Airplane        |
| Year of Manufacture:             |                         | Amateur Built:                    |                 |
| Airworthiness Certificate:       | Normal                  | Serial Number:                    | P17257184       |
| Landing Gear Type:               | Tricycle                | Seats:                            | 4               |
| Date/Type of Last<br>Inspection: | December 4, 2009 Annual | Certified Max Gross Wt.:          | 2400 lbs        |
| Time Since Last Inspection:      | 9 Hrs                   | Engines:                          | 1 Reciprocating |
| Airframe Total Time:             |                         | Engine Manufacturer:              | CONT MOTOR      |
| ELT:                             | Installed               | Engine Model/Series:              | 0-360-A1A       |
| Registered Owner:                | PRAIRIE HAWK INC        | Rated Power:                      | 180 Horsepower  |
| Operator:                        | Douglas L. Tindal       | Operating Certificate(s)<br>Held: | None            |

### Meteorological Information and Flight Plan

| Conditions at Accident Site:            | Instrument (IMC)          | Condition of Light:                     | Night/dark       |
|---|---------------------------|---|------------------|
| <b>Observation Facility, Elevation:</b> | CID,864 ft msl            | Distance from Accident Site:            | 0 Nautical Miles |
| Observation Time:                       | 19:52 Local               | Direction from Accident Site:           | 0°               |
| Lowest Cloud Condition:                 |                           | Visibility                              | 0.5 miles        |
| Lowest Ceiling:                         | Indefinite (V V)          | Visibility (RVR):                       |                  |
| Wind Speed/Gusts:                       | 10 knots / None           | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                         | 290°                      | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:                      | 29.89 inches Hg           | Temperature/Dew Point:                  | -2°C / -2°C      |
| Precipitation and Obscuration:          | Moderate - Freezing - Fog |   |                  |
| Departure Point:                        | Tulsa, OK (RVS )          | Type of Flight Plan Filed:              | None             |
| Destination:                            | Washington, IA (AWG )     | Type of Clearance:                      | None             |
| Departure Time:                         | 16:00 Local               | Type of Airspace:                       | Class C          |

### **Airport Information**

| Airport:             | Cedar Rapids CID | Runway Surface Type:      |      |
|----------------------|------------------|---------------------------|------|
| Airport Elevation:   |                  | Runway Surface Condition: |      |
| Runway Used:         |                  | IFR Approach:             | ILS  |
| Runway Length/Width: |                  | VFR Approach/Landing:     | None |

### Wreckage and Impact Information

| Crew Injuries:         | 1 Minor | Aircraft Damage:        | Substantial          |
|------------------------|---------|-------------------------|----------------------|
| Passenger<br>Injuries: |         | Aircraft Fire:          | None                 |
| Ground Injuries:       | N/A     | Aircraft Explosion:     | None                 |
| Total Injuries:        | 1 Minor | Latitude,<br>Longitude: | 41.884445,-91.710556 |

#### **Administrative Information**

| Investigator In Charge (IIC):        | Sullivan, Pamela  |
|--------------------------------------|---|
| Additional Participating<br>Persons: | Tony Will; FAA-DSM-FSDO; Des Moines, IA   |
| Original Publish Date:               | July 1, 2010  |
| Last Revision Date:                  |   |
| Investigation Class:                 | <u>Class</u>  |
| Note:                                | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket:                | https://data.ntsb.gov/Docket?ProjectID=75282  |

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