

Aviation Investigation Final Report

| Location: | Grinnell, Iowa | Accident Number: | CHI03LA157 |
|-------------------------|--------------------------------------|----------------------|-------------|
| Date & Time: | June 5, 2003, 13:30 Local | Registration: | N5667C |
| Aircraft: | Cessna 140A | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The airplane ground looped during landing. The pilot stated he received a report from another aircraft that the winds at his destination were variable and that he could choose a runway. The pilot reported the approach and touchdown were normal. The pilot noted he encountered a right rear-quartering gust. Winds 21 miles south-southwest of the accident site were recorded as 210 degrees at 10 knots gusting to 15 knots. The pilot stated the airplane swerved, ground looped, and subsequently nosed over.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadvertent ground loop. Factors contributing to the accident were the wind gusts and crosswind conditions.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER Phase of Operation: LANDING - ROLL

Findings

1. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

2. (F) WEATHER CONDITION - GUSTS

3. (F) WEATHER CONDITION - CROSSWIND

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Occurrence #2: NOSE OVER Phase of Operation: LANDING - ROLL

Factual Information

On June 5, 2003, at 1330 central daylight time, a Cessna 140A, N5667C, owned and piloted by a private pilot, sustained substantial damage when it ground looped during landing on runway 13 (5,200 feet by 75 feet, dry concrete) at Grinnell Regional Airport (GGI), Grinnell, Iowa. Visual meteorological conditions prevailed at the time of the accident. The pilot reported no injuries. The 14 CFR Part 91 personal flight was not operating on a flight plan. The flight departed Pella Municipal Airport (PEA), Pella, Iowa, at 1230, en route to GGI

The pilot reported he received a report from another aircraft at GGI that the winds were variable and that he "could pick [a] runway." The pilot stated that he entered a downwind for runway 13, and the approach and touchdown were normal. The pilot stated the airplane "seemed to take a right rear quartering gust." The airplane then swerved, ground looped, and subsequently nosed over.

The pilot reported there were no mechanical malfunctions or failures during the accident flight.

A weather reporting station at PEA, 21 nautical miles south-southwest of the accident site, recorded at 1335: winds from 210 degrees at 10 knots, gusting to 15 knots.

| Thethermation | | | |
|---------------------------|---|-----------------------------------|-------------------|
| Certificate: | Private | Age: | 40,Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Right |
| 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 Valid Medicalw/ waivers/lim | Last FAA Medical Exam: | November 17, 2002 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | November 15, 2002 |
| Flight Time: | 639 hours (Total, all aircraft), 102 hours (Total, this make and model), 639 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Pilot Information

Aircraft and Owner/Operator Information

| Aircraft Make: | Cessna | Registration: | N5667C |
|----------------------------------|--------------------------------|-----------------------------------|-----------------|
| Model/Series: | 140A | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal; Utility | Serial Number: | 15623 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | November 1, 2002 Annual | Certified Max Gross Wt.: | 1500 lbs |
| Time Since Last Inspection: | 58.6 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 2633.9 Hrs at time of accident | Engine Manufacturer: | Continental |
| ELT: | Installed, not activated | Engine Model/Series: | C90-14-F |
| Registered Owner: | On file | Rated Power: | 90 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|----------------------------------|----------------------------------|---|-------------------|
| Observation Facility, Elevation: | PEA,885 ft msl | Distance from Accident Site: | 21 Nautical Miles |
| Observation Time: | 13:35 Local | Direction from Accident Site: | 207° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 10 knots / 15 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 210° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29.97 inches Hg | Temperature/Dew Point: | 24°C / 11°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Pella, IA (PEA) | Type of Flight Plan Filed: | None |
| Destination: | Grinnell, IA (GGI) | Type of Clearance: | None |
| Departure Time: | 12:30 Local | Type of Airspace: | Class G |

Airport Information

| Airport: | Grinnell Regional Airport GGI | Runway Surface Type: | Concrete |
|----------------------|-------------------------------|----------------------------------|---------------------------|
| Airport Elevation: | 1008 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 13 | IFR Approach: | None |
| Runway Length/Width: | 5200 ft / 75 ft | VFR Approach/Landing: | Full stop;Traffic pattern |

Wreckage and Impact Information

| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
|------------------------|--------|-------------------------|----------------------|
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 41.709445,-92.734725 |

Administrative Information

| Investigator In Charge (IIC): | Gallo, Mitchell |
|--------------------------------------|---|
| Additional Participating Persons: | Keith Miller; FAA- Des Moines FSDO; Ankenny, IA |
| Original Publish Date: | November 25, 2003 |
| Last Revision Date: | |
| Investigation Class: | <u>Class</u> |
| Note: | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=57199 |

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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 <u>here</u>.