



# Aviation Investigation Final Report

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|--------------------------------|---|-------------------------|-------------|
| <b>Location:</b>               | EDEN PRAIRIE, Minnesota                   | <b>Accident Number:</b> | CHI01FA209  |
| <b>Date &amp; Time:</b>        | July 17, 2001, 16:17 Local                | <b>Registration:</b>    | N3214L      |
| <b>Aircraft:</b>               | Beech B19                                 | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |   | <b>Injuries:</b>        | 1 Minor     |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Instructional |                         |             |

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## Analysis

The student pilot said she was flying in the traffic pattern and was on a long final to perform a touch-and-go landing. She said that the visual approach slope indicator lights showed she was on the proper glide path. The student pilot said that when she was sure she was in a position to land on the runway, she lowered a third notch of flaps. She said she reduced the power to idle as she crossed over the threshold and tried to maintain her altitude. The student pilot said, "I touchdown and ballooned up. Then the airplane returned to the runway and ballooned again. About the third bounce I lunged forward as the nosewheel had broken off." The student pilot said the airplane slid to a stop on the grass near the runway. An examination of the airplane revealed no anomalies.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot's failure to maintain aircraft control during the landing, her failure to recover from the bounced landing, and the nose gear overload.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) RECOVERY FROM BOUNCED LANDING - NOT PERFORMED - PILOT IN COMMAND

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Occurrence #2: NOSE GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

3. (C) LANDING GEAR, NOSE GEAR - OVERLOAD

## Factual Information

On July 17, 2001, at 1617 central daylight time, a Beech B19, N3214L, operated by a student pilot sustained substantial damage when it impacted on runway 18 (2,691 feet by 75 feet, dry asphalt) at Flying Cloud Airport (FCM), Eden Prairie, Minnesota, following a bounced landing. The airplane subsequently departed the left side of the runway and came to a stop in the grass field. Visual meteorological conditions prevailed at the time of the accident. The solo instructional flight was being conducted under the provisions of 14 CFR Part 91 without a flight plan. The student pilot sustained minor injuries. The local flight originated at Eden Prairie, Minnesota, at approximately 1600.

In her written statement, the student pilot said she was flying in the traffic pattern and was on a long final to perform a touch-and-go landing. She said that the visual approach slope indicator lights showed she was on the proper glide path. The student pilot said that when she was sure she was in a position to land on the runway, she lowered a third notch of flaps. She said she reduced the power to idle as she crossed over the threshold and tried to maintain her altitude. The student pilot said, "I touchdown and ballooned up. Then the airplane returned to the runway and ballooned again. About the third bounce I lunged forward as the nosewheel had broken off." The student pilot said the airplane slid to a stop on the grass near the runway.

The NTSB on scene investigation began on July 21, 2001. The airplane and airplane records were examined at FCM. The airplane's nose gear tubes were bent aft and broken. The nose wheel and trunion were broken off. The airplane's firewall showed a 1-inch deep gash in the bottom center. The lower right side of the firewall was bent inward. The bottom right side of the fuselage, aft of the firewall showed a 36-inch long, 12-inch wide aft running dent in the skin. Both propeller blades were curled aft at the tips. The tip of the spinner was dented inward. Flight control continuity was confirmed. An examination of the engine, engine controls, and other airplane systems revealed no anomalies.

## Pilot Information

|                                  |  |  |                  |
|----------------------------------|--|--|------------------|
| <b>Certificate:</b>              | Student  | <b>Age:</b>                              | 26,Female        |
| <b>Airplane Rating(s):</b>       | None   | <b>Seat Occupied:</b>                    | Left             |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   |                  |
| <b>Instrument Rating(s):</b>     | None   | <b>Second Pilot Present:</b>             | No               |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | No               |
| <b>Medical Certification:</b>    | Class 3 None   | <b>Last FAA Medical Exam:</b>            | January 26, 2001 |
| <b>Occupational Pilot:</b>       | No   | <b>Last Flight Review or Equivalent:</b> |                  |
| <b>Flight Time:</b>              | 47 hours (Total, all aircraft), 43 hours (Total, this make and model), 4 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft) |  |                  |

## Aircraft and Owner/Operator Information

|                                      |                               |                                       |                 |
|--------------------------------------|-------------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | Beech                         | <b>Registration:</b>                  | N3214L          |
| <b>Model/Series:</b>                 | B19                           | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                               | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal                        | <b>Serial Number:</b>                 | MB829           |
| <b>Landing Gear Type:</b>            | Tricycle                      | <b>Seats:</b>                         | 2               |
| <b>Date/Type of Last Inspection:</b> | July 13, 2001 Annual          | <b>Certified Max Gross Wt.:</b>       | 2150 lbs        |
| <b>Time Since Last Inspection:</b>   | 3 Hrs                         | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 11191 Hrs at time of accident | <b>Engine Manufacturer:</b>           | Lycoming        |
| <b>ELT:</b>                          | Installed, not activated      | <b>Engine Model/Series:</b>           | O-320-E2D       |
| <b>Registered Owner:</b>             | GREAT LAKES AIRCRAFT INC.     | <b>Rated Power:</b>                   | 150 Horsepower  |
| <b>Operator:</b>                     |                               | <b>Operating Certificate(s) Held:</b> | None            |

## Meteorological Information and Flight Plan

|   |                                  |   |                  |
|---|----------------------------------|---|------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Day              |
| <b>Observation Facility, Elevation:</b> | FCM,906 ft msl                   | <b>Distance from Accident Site:</b>         | 1 Nautical Miles |
| <b>Observation Time:</b>                | 16:28 Local                      | <b>Direction from Accident Site:</b>        | 360°             |
| <b>Lowest Cloud Condition:</b>          | Few / 3500 ft AGL                | <b>Visibility</b>                           | 10 miles         |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |                  |
| <b>Wind Speed/Gusts:</b>                | 6 knots /                        | <b>Turbulence Type Forecast/Actual:</b>     | /                |
| <b>Wind Direction:</b>                  | 160°                             | <b>Turbulence Severity Forecast/Actual:</b> | /                |
| <b>Altimeter Setting:</b>               | 29.85 inches Hg                  | <b>Temperature/Dew Point:</b>               | 32°C / 23°C      |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                  |
| <b>Departure Point:</b>                 | EDEN PRAIRIE, MN (FCM )          | <b>Type of Flight Plan Filed:</b>           | None             |
| <b>Destination:</b>                     |                                  | <b>Type of Clearance:</b>                   | None             |
| <b>Departure Time:</b>                  | 16:00 Local                      | <b>Type of Airspace:</b>                    | Class B          |

## Airport Information

|                             |                          |                                  |                              |
|-----------------------------|--------------------------|----------------------------------|------------------------------|
| <b>Airport:</b>             | FLYING CLOUD AIRPORT FCM | <b>Runway Surface Type:</b>      | Asphalt                      |
| <b>Airport Elevation:</b>   | 906 ft msl               | <b>Runway Surface Condition:</b> | Dry                          |
| <b>Runway Used:</b>         | 18                       | <b>IFR Approach:</b>             | None                         |
| <b>Runway Length/Width:</b> | 2691 ft / 75 ft          | <b>VFR Approach/Landing:</b>     | Touch and go;Traffic pattern |

## Wreckage and Impact Information

|                            |         |                             |                      |
|----------------------------|---------|-----------------------------|----------------------|
| <b>Crew Injuries:</b>      | 1 Minor | <b>Aircraft Damage:</b>     | Substantial          |
| <b>Passenger Injuries:</b> |         | <b>Aircraft Fire:</b>       | None                 |
| <b>Ground Injuries:</b>    | N/A     | <b>Aircraft Explosion:</b>  | None                 |
| <b>Total Injuries:</b>     | 1 Minor | <b>Latitude, Longitude:</b> | 44.826667,-93.456665 |

## Administrative Information

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|--|---|
| <b>Investigator In Charge (IIC):</b>     | Bowling, David  |
| <b>Additional Participating Persons:</b> | DENNIS E CRAWFORD; FEDERAL AVIATION ADMINISTRATION; MINNEAPOLIS, MN                                   |
| <b>Original Publish Date:</b>            | June 3, 2002  |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class</a>   |
| <b>Note:</b>                             | The NTSB traveled to the scene of this accident.  |
| <b>Investigation Docket:</b>             | <a href="https://data.nts.gov/Docket?ProjectID=52827">https://data.nts.gov/Docket?ProjectID=52827</a> |

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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 [here](#).