



National Transportation Safety Board Aviation Accident Data Summary

| | | | |
|--------------------------------|---|-------------------------|------------|
| Location: | LAFAYETTE, IN | Accident Number: | CHI97LA098 |
| Date & Time: | 04/02/1997, 2230 EST | Registration: | N6148H |
| Aircraft: | Piper PA-28-161 | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General Aviation - Instructional | | |

Analysis

The CFI and student pilot were conducting night takeoffs and landings. The CFI stated that after the third landing touchdown, at an airspeed of approximately 30 knot, the right main landing gear strut began to shimmy and the gear collapsed. The airplane came to rest on the runway. The CFI stated they had used aft elevator pressure to slow the airplane and not the brakes. Metallurgical examination of the fractured landing gear strut/spar attachment screws revealed that two of the four screws contained fatigue cracking. The other two screw fractures were secondary failures.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a fatigue failure of the fight main landing gear strut/spar attachment screws.

Findings

Occurrence #1: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR,MAIN GEAR ATTACHMENT - FAILURE,TOTAL
2. (C) MISCELLANEOUS,BOLT/NUT/FASTENER/CLAMP/SPRING - FATIGUE

Pilot Information

| | | | |
|----------------------------------|--|------------------------------|---|
| Certificate: | Flight Instructor; Commercial | Age: | 23 |
| Airplane Rating(s): | Multi-engine Land; Single-engine Land | Instrument Rating(s): | Airplane |
| Other Aircraft Rating(s): | None | Instructor Rating(s): | Airplane Single-engine; Instrument Airplane |
| Flight Time: | 875 hours (Total, all aircraft), 520 hours (Total, this make and model), 401 hours (Pilot In Command, all aircraft), 71 hours (Last 90 days, all aircraft), 46 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|---------------------------------------|---|-----------------------------|-----------------|
| Aircraft Make: | Piper | Registration: | N6148H |
| Model/Series: | PA-28-161 PA-28-161 | Engines: | 1 Reciprocating |
| Operator: | PURDUE PILOTS, INC. | Engine Manufacturer: | Lycoming |
| Operating Certificate(s) Held: | None | Engine Model/Series: | O-320-D3G |
| Flight Conducted Under: | Part 91: General Aviation - Instructional | | |

Meteorological Information and Flight Plan

| | | | |
|---|-------------------|-------------------------------------|--------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Night/Bright |
| Observation Facility, Elevation: | , 0 ft msl | Weather Information Source: | Pilot |
| Lowest Ceiling: | None / 0 ft agl | Wind Speed/Gusts, Direction: | Calm / , |
| Temperature: | 15° C | Visibility | 20 Miles |
| Precipitation and Obscuration: | | | |
| Departure Point: | (3AR) | Destination: | (LAF) |

Airport Information

| | | | |
|-----------------------------|------------------------|----------------------------------|----------|
| Airport: | LAFAYETTE PURDUE (LAF) | Runway Surface Type: | Concrete |
| Runway Used: | 28 | Runway Surface Condition: | Dry |
| Runway Length/Width: | 6600 ft / 150 ft | | |

Wreckage and Impact Information

| | | | |
|-----------------------------|--------|----------------------------|-------------|
| Crew Injuries: | 2 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Latitude, Longitude: | | | |

Administrative Information

| | | | |
|--------------------------------------|--|----------------------|------------|
| Investigator In Charge (IIC): | PAMELA S SULLIVAN | Adopted Date: | 09/05/1997 |
| 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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ . | | |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.