



Aviation Investigation Final Report

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|--------------------------------|---|-------------------------|-------------|
| Location: | HARBOR SPRINGS, Michigan | Accident Number: | CHI00LA228 |
| Date & Time: | July 27, 2000, 21:45 Local | Registration: | N345CD |
| Aircraft: | Piper PA-34-200T | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 5 None |
| Flight Conducted Under: | Part 91: General aviation - Instructional | | |

Analysis

The pilot reported that prior to landing, he called the UNICOM for wind information. He was informed that the winds were calm, so he elected to land on runway 28. He reported that the landing approach was high and he touched down 1/3 to 1/2 way down the 4,157-foot long, wet runway. He reported he applied full brakes, but the airplane did not slow down. The pilot reported that it was too late to perform a go-around so he decided to keep the airplane on the ground. The pilot made an intentional sharp left turn to avoid a fence at the end of the runway and the right main gear collapsed when it contacted the grass off the side of the runway. The airplane came to rest almost 180 degrees to the direction of landing. The pilot reported the local winds were from 080 degrees at 7 knots. He reported, 'A flight over the wind sock would have prevented this mishap.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot selected the wrong runway direction in which to land and he did not perform a go-around when he realized the landing approach was too high. Factors associated with the accident were the tailwind condition, the improper glidepath, and the intentional ground loop/swerve, and the fence at the end of the runway.

Findings

Occurrence #1: ABRUPT MANEUVER
Phase of Operation: LANDING - ROLL

Findings

1. (F) WEATHER CONDITION - TAILWIND
2. (C) WRONG RUNWAY - SELECTED - PILOT IN COMMAND
3. (F) PROPER GLIDEPATH - IMPROPER - PILOT IN COMMAND
4. (C) GO-AROUND - NOT PERFORMED - PILOT IN COMMAND
5. PROPER TOUCHDOWN POINT - EXCEEDED - PILOT IN COMMAND
6. (F) OBJECT - FENCE
7. (F) GROUND LOOP/SWERVE - INTENTIONAL - PILOT IN COMMAND

Occurrence #2: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

8. LANDING GEAR - OVERLOAD

Factual Information

On July 27, 2000, at 2145 eastern daylight time, a Piper PA-34-200T, N345CD, operated by a certificated flight instructor (CFI) was substantially damaged during an intentional ground loop/swerve while landing on runway 28 (4,157' x 75', wet asphalt) at the Harbor Springs Municipal Airport, Harbor Springs, Michigan. The CFI, dual private pilot, and three passengers were not injured. Visual meteorological conditions prevailed for the 14 CFR Part 91 instructional flight. The flight was operating under an IFR flight plan, which was canceled prior to landing. The flight originated from Detroit, Michigan, at 2100 eastern daylight time.

The CFI reported that once they had the airport in sight he cancelled his IFR flight plan. He reported he called the UNICOM for wind information. He was informed that the winds were calm, so he elected to land on runway 28. The pilot reported that his landing approach was high and he touched down 1/3 to 1/2 way down the runway. He reported he applied full brakes, but the airplane did not slow down. The pilot reported that it was too late to perform a go-around so he decided to keep the airplane on the ground. He reported that he made an intentional sharp left turn to avoid a fence at the end of the runway and the right main gear collapsed when it contacted the grass off the side of the runway. The airplane came to rest almost 180 degrees to the direction of landing. Inspection of the airplane revealed the right wing spar, the right engine and propeller, and the right wing flap and aileron sustained damage as a result of the gear collapse.

The pilot reported the local winds were from 080 degrees at 7 knots. He reported, "A flight over the wind sock would have prevented this mishap."

Pilot Information

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| Certificate: | Commercial; Flight instructor | Age: | 61, Male |
| Airplane Rating(s): | Single-engine land; Single-engine sea; Multi-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane multi-engine; Airplane single-engine; Instrument airplane | Toxicology Performed: | No |
| Medical Certification: | Unknown Unknown | Last FAA Medical Exam: | |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 13000 hours (Total, all aircraft), 65 hours (Total, this make and model), 13000 hours (Pilot In Command, all aircraft), 300 hours (Last 90 days, all aircraft), 140 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|-----------------|
| Aircraft Make: | Piper | Registration: | N345CD |
| Model/Series: | PA-34-200T PA-34-200T | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 34-7770148 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 6 |
| Date/Type of Last Inspection: | August 1, 2000 Unknown | Certified Max Gross Wt.: | 4570 lbs |
| Time Since Last Inspection: | 6 Hrs | Engines: | 2 Reciprocating |
| Airframe Total Time: | 3136 Hrs | Engine Manufacturer: | Continental |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | TSIO-360-E |
| Registered Owner: | DENICE T. SUMMERS | Rated Power: | 200 Horsepower |
| Operator: | BEAR RIVER AVIATION | Operating Certificate(s) Held: | None |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

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| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Night/dark |
| Observation Facility, Elevation: | PLN ,720 ft msl | Distance from Accident Site: | 11 Nautical Miles |
| Observation Time: | 21:50 Local | Direction from Accident Site: | 30° |
| Lowest Cloud Condition: | Scattered / 2700 ft AGL | Visibility | 3 miles |
| Lowest Ceiling: | Overcast / 6000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 4 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 0° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 18°C / 17°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | DETROIT , MI (DET) | Type of Flight Plan Filed: | IFR |
| Destination: | (D87) | Type of Clearance: | IFR |
| Departure Time: | 21:00 Local | Type of Airspace: | Class E |

Airport Information

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|-----------------------------|--------------------|----------------------------------|-----------|
| Airport: | HARBOR SPRINGS D87 | Runway Surface Type: | Asphalt |
| Airport Elevation: | 686 ft msl | Runway Surface Condition: | Wet |
| Runway Used: | 28 | IFR Approach: | |
| Runway Length/Width: | 4157 ft / 75 ft | VFR Approach/Landing: | Full stop |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 2 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 3 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 5 None | Latitude, Longitude: | 45.430477,-84.979278(est) |

Administrative Information

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|--|---|
| Investigator In Charge (IIC): | Sullivan, Pamela |
| Additional Participating Persons: | WILL ELLIOT; GRAND RAPIDS , MI |
| Original Publish Date: | May 18, 2001 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | The NTSB traveled to the scene of this accident. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=49875 |

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).