



National Transportation Safety Board Aviation Accident Final Report

| | | | |
|--------------------------------|---|-------------------------|-------------|
| Location: | McMinnville, OR | Accident Number: | GAA16CA011 |
| Date & Time: | 10/01/2015, 2010 PDT | Registration: | N20488 |
| Aircraft: | CESSNA 172M | Aircraft Damage: | Substantial |
| Defining Event: | Collision during takeoff/land | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General Aviation - Instructional | | |

Analysis

The student pilot reported that on his first night training flight he was practicing takeoffs and landings. He stated that during his third approach, as he was turning from base to final, the precision approach path indicator (PAPI) displayed four red lights, indicating that he was below the recommended approach path. The flight instructor told him that he was too low and to add power. The student pilot added power and the far left PAPI light started to turn from red to white. He reported that on short final, he reduced engine power to idle and that during touchdown, the airplane collided with a runway threshold light. The airplane sustained substantial damage to horizontal stabilizer spar.

The flight instructor reported no preimpact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's failure to correct the student pilot's approach path during the final approach, which resulted in a collision with runway threshold lights. Contributing to the accident was the student pilot's failure to attain and maintain the recommended approach path.

Findings

| | |
|-------------------------|---|
| Aircraft | Descent/approach/glide path - Not attained/maintained (Cause) Descent/approach/glide path - Not attained/maintained (Factor) |
| Personnel issues | Lack of action - Instructor/check pilot (Cause) Aircraft control - Student pilot (Factor) Decision making/judgment - Instructor/check pilot |

Factual Information

History of Flight

| | |
|----------------------------|--|
| Approach-VFR pattern final | Altitude deviation |
| Landing-flare/touchdown | Collision during takeoff/land (Defining event) |

Student Pilot Information

| | | | |
|---------------------------|--|-----------------------------------|------|
| Certificate: | Student | Age: | 42 |
| Airplane Rating(s): | None | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 Without Waivers/Limitations | Last Medical Exam: | |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | (Estimated) 43 hours (Total, all aircraft), 3.8 hours (Total, this make and model), 3.7 hours (Pilot In Command, all aircraft) | | |

Flight Instructor Information

| | | | |
|---------------------------|---|-----------------------------------|------------|
| Certificate: | Flight Instructor; Commercial | Age: | 63 |
| Airplane Rating(s): | Multi-engine Land; Single-engine Land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | Glider | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane Single-engine; Instrument Airplane | Toxicology Performed: | No |
| Medical Certification: | Class 2 With Waivers/Limitations | Last Medical Exam: | 10/20/2014 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | 04/28/2015 |
| Flight Time: | (Estimated) 1520 hours (Total, all aircraft), 522 hours (Total, this make and model), 1445 hours (Pilot In Command, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|-------------------------------|-------------------------------|------------------------------------|-----------------|
| Aircraft Manufacturer: | CESSNA | Registration: | N20488 |
| Model/Series: | 172M | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Utility | Serial Number: | 17261331 |
| Landing Gear Type: | Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | 03/27/2015, 100 Hour | Certified Max Gross Wt.: | 2300 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 4857 Hours | Engine Manufacturer: | LYCOMING |
| ELT: | C126 installed, not activated | Engine Model/Series: | O-320-E2D |
| Registered Owner: | DAVID F WAGGONER | Rated Power: | 150 hp |
| Operator: | DAVID F WAGGONER | Air Carrier Operating Certificate: | None |
| Operator Does Business As: | Willamette Aviation | Operator Designator Code: | |

Meteorological Information and Flight Plan

| | | | |
|----------------------------------|----------------------------------|------------------------------|-------------------|
| Observation Facility, Elevation: | KMMV, 159 ft msl | Observation Time: | 0253 UTC |
| Distance from Accident Site: | 0 Nautical Miles | Condition of Light: | Night |
| Direction from Accident Site: | 209° | Conditions at Accident Site: | Visual Conditions |
| Lowest Cloud Condition: | Clear | Temperature/Dew Point: | 17° C / 12° C |
| Lowest Ceiling: | None | Visibility | 10 Miles |
| Wind Speed/Gusts, Direction: | 5 knots, 220° | Visibility (RVR): | |
| Altimeter Setting: | 30.06 inches Hg | Visibility (RVV): | |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | AURORA, OR (UAO) | Type of Flight Plan Filed: | None |
| Destination: | McMinnville, OR (MMV) | Type of Clearance: | None |
| Departure Time: | 1740 PDT | Type of Airspace: | Class G |

Airport Information

| | | | |
|----------------------|-------------------------|---------------------------|-------------|
| Airport: | MC MINNVILLE MUNI (MMV) | Runway Surface Type: | Asphalt |
| Airport Elevation: | 163 ft | Runway Surface Condition: | Dry |
| Runway Used: | 22 | IFR Approach: | None |
| Runway Length/Width: | 5420 ft / 150 ft | VFR Approach/Landing: | Stop and Go |

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 |
| Total Injuries: | 2 None | | |

Administrative Information

| | | | |
|--|---|----------------------|------------|
| Investigator In Charge (IIC): | Bradley M Bigelow | Adopted Date: | 11/05/2015 |
| Additional Participating Persons: | TONY MOORE; FEDERAL AVIATION ADMINISTRATION; PORTLAND, OR | | |
| Publish Date: | 11/05/2015 | | |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. | | |
| Investigation Docket: | http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=92147 | | |

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.