



Aviation Investigation Final Report

Location: Ann Arbor, Michigan Accident Number: CEN09CA554

Date & Time: August 29, 2009, 16:20 Local Registration: N715V

Aircraft: Socata TBM 700 Aircraft Damage: Substantial

Defining Event: Hard landing **Injuries:** 1 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot stated that, during landing with the airplane near the runway threshold and at about 85 knots, "the bottom dropped out." The airplane's right main landing gear then impacted the runway. The airplane's right wing was substantially damaged during the hard landing. The pilot stated that during the approach the control tower gave him three different wind advisories, varying from 260 to 300 degrees. At the time of the accident, the winds were reported from the northeast at 18 knots, gusting to 25 knots. There were no reported anomalies with the airplane's flight controls.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's hard landing during gusty wind conditions.

Findings

Environmental issues Gusts - Effect on equipment

Aircraft Landing flare - Not specified

Personnel issues Aircraft control - Pilot

Factual Information

History of Flight

| Landing | Abnormal runway contact |
|---------|-------------------------------|
| Landing | Hard landing (Defining event) |

Pilot Information

| Certificate: | Private | Age: | 48,Male |
|---------------------------|---|-----------------------------------|-------------------|
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | May 23, 2008 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | November 30, 2008 |
| Flight Time: | 1233 hours (Total, all aircraft), 458 hours (Total, this make and model), 1113 hours (Pilot In Command, all aircraft), 73 hours (Last 90 days, all aircraft), 19 hours (Last 30 days, all aircraft) | | |

Aircraft and Owner/Operator Information

| Aircraft Make: | Socata | Registration: | N715V |
|-------------------------------|--------------------------------|-----------------------------------|----------------|
| Model/Series: | TBM 700 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 108 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 6 |
| Date/Type of Last Inspection: | August 3, 2009 Annual | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | | Engines: | 1 Turbo prop |
| Airframe Total Time: | 4013 Hrs as of last inspection | Engine Manufacturer: | P&W |
| ELT: | Installed, not activated | Engine Model/Series: | PT6A SER |
| Registered Owner: | DML AVIATION LLC | Rated Power: | 750 Horsepower |
| Operator: | DML AVIATION LLC | Operating Certificate(s) Held: | None |
| | | | |

Page 2 of 4 CEN09CA554

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|----------------------------------|----------------------------------|--------------------------------------|-------------|
| Observation Facility, Elevation: | KARB | Distance from Accident Site: | |
| Observation Time: | 16:53 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | Few / 4300 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | Broken / 5000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 18 knots / 24 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 290° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29.77 inches Hg | Temperature/Dew Point: | 19°C / 11°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Ypsilanti, MI (KYIP) | Type of Flight Plan Filed: | Unknown |
| Destination: | Ann Arbor, MI (KARB) | Type of Clearance: | None |
| Departure Time: | | Type of Airspace: | |

Airport Information

| Airport: | Ann Arbor KARB | Runway Surface Type: | Concrete |
|----------------------|-----------------|----------------------------------|-------------|
| Airport Elevation: | | Runway Surface Condition: | Dry |
| Runway Used: | 24 | IFR Approach: | None |
| Runway Length/Width: | 3500 ft / 75 ft | VFR Approach/Landing: | Straight-in |

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: | 42.2,-83.733329(est) |

Page 3 of 4 CEN09CA554

Administrative Information

| Investigator In Charge (IIC): | Hatch, Craig |
|-----------------------------------|---|
| Additional Participating Persons: | Glenn Gosnell; FAA FSDO; Detroit , MI |
| Original Publish Date: | March 3, 2010 |
| Last Revision Date: | |
| Investigation Class: | <u>Class</u> |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=74636 |
| | |

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.

Page 4 of 4 CEN09CA554