Aviation Investigation Final Report

Location:	Dowling, Michigan	**Accident Number:**	CEN17LA184
Date & Time:	May 15, 2017, 13:30 Local	**Registration:**	N9265M
Aircraft:	Mooney M20E	**Aircraft Damage:**	Substantial
Defining Event:	Flight instrument malf/fail	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot stated that, during the flight, the airspeed indicator displayed a lower than normal airspeed. The pilot landed the airplane at an intermediate airport to drop off a passenger, then continued to his home airport, a privately-owned, 2,000-ft-long turf runway. During the first attempted landing, the airplane would not "settle," and the pilot initiated a go-around. During the second landing, the airplane floated again, consistent with a higher-than-indicated airspeed, and the pilot "forced" the airplane onto the runway. The airplane porpoised and continued off the runway, hitting trees, a fence, and a pole, resulting in substantial damage. During postaccident examination, the remains of an insect were found in the pitot tube. A functional test of the airspeed indicator revealed no anomalies. It is likely that the inaccurate airspeed indications were due to the contamination of the pitot static system, which subsequently resulted in a high approach and landing speed and subsequent runway overrun.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Innacurate airspeed indications due to contamination of the pitot-static system with insect remains, which resulted in a high approach and landing speed and subsequent runway overrun.

Findings

Aircraft	Pitot/static system - Related operating info
Aircraft	Airspeed - Related operating info

Factual Information

History of Flight

Landing-flare/touchdown	Flight instrument malf/fail (Defining event)
Landing-landing roll	Collision with terr/obj (non-CFIT)

On May 15, 2017, about 1330 eastern daylight time, a Mooney M20E airplane, N9265M, was substantially damaged when it impacted trees, a fence, and a pole, while landing at a private grass airstrip near Dowling, Michigan. The private pilot was not injured. The personal flight was conducted under the provisions of 14 *Code of Federal Regulations* Part 91 without a flight plan. Visual meteorological conditions prevailed for the flight that departed W K Kellogg Airport (BTL), Battle Creek, Michigan, and was en route to the private airstrip.

According to the pilot, during the flight the airspeed indicator did not indicate as high as it normally would. He landed uneventfully at BTL to drop off a passenger and then continued to the private airstrip (2,000 feet by 120 feet, grass) for a full-stop landing. While on final approach, the pilot decreased airspeed to 70 miles per hour (mph); however, the airplane would not settle so he initiated a go around. During the second attempt to land, the pilot decreased airspeed to 60 mph, but the airplane still would not land. The pilot stated that he "forced" the airplane to land.

During touchdown the airplane porpoised and continued off of the runway hitting trees, a fence, and a pole. According to the Federal Aviation Administration inspectors who responded to the accident, the left main landing gear and nose gear collapsed. The right wing sustained substantial impact damage to the leading edge and the spar. The pitot tube separated from the airplane and could not be functionally tested.

During the examination of the pitot static system debris was recovered from the pitot tube that appeared organic in nature, consistent with the remains of an insect. A functional test of the airspeed indicator revealed no anomalies that would have precluded normal operation.

Pilot Information

Certificate:	Private	**Age:**	70,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
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:**	April 13, 2015
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	April 19, 2016
Flight Time:	3723 hours (Total, all aircraft), 3552 hours (Total, this make and model), 3523 hours (Pilot In Command, all aircraft), 36 hours (Last 90 days, all aircraft), 10.6 hours (Last 30 days, all aircraft), 1.5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	**Registration:**	N9265M
Model/Series:	M20E	**Aircraft Category:**	Airplane
Year of Manufacture:	1966	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1208
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	March 1, 2017 Annual	**Certified Max Gross Wt.:**	2575 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	3224.6 Hrs at time of accident	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, not activated	**Engine Model/Series:**	I0-360-A1A
Registered Owner:	On file	**Rated Power:**	200 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	BTL,951 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	13:53 Local	**Direction from Accident Site:**	170°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots / None	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	160°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.04 inches Hg	**Temperature/Dew Point:**	21°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Battle Creek, MI (BTL)	**Type of Flight Plan Filed:**	None
Destination:	Dowling, MI	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class G

Airport Information

Airport:	Private NA	**Runway Surface Type:**	Grass/turf
Airport Elevation:	930 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	9	**IFR Approach:**	None
Runway Length/Width:	2000 ft / 120 ft	**VFR Approach/Landing:**	Go around;Traffic pattern

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:**	42.471942,-85.230278

Administrative Information

Investigator In Charge (IIC):	Rodi, Jennifer
Additional Participating Persons:	Tom Kazura; FAA FSDO; MI
Original Publish Date:	November 14, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=95176

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