



National Transportation Safety Board Aviation Accident Final Report

Location:	Ottawa, Kansas	Accident Number:	GAA16CA107
Date & Time:	January 19, 2016, 12:50 Local	Registration:	N113WB
Aircraft:	Piper PA 46	Aircraft Damage:	Substantial
Defining Event:	Structural icing	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

According to the flight instructor, he and the pilot rated student receiving instruction were operating under instrument flight rules in instrument meteorological conditions. He reported that throughout the flight the airplane accumulated light rime ice. He recalled that after holding at a Very High Frequency Omni-Directional Range (VOR), they completed a VOR approach, executed the missed approach procedure, set the power to climb at the airspeed of 130 knots indicated airspeed and began to climb to 5000 feet. He reported that as they climbed they encountered freezing rain, the airspeed began to deteriorate and the degree of ice accumulation increased from light to moderate. He reported that all of the airplane's de-ice systems were functioning yet he was not able to maintain altitude. He determined that landing at the destination airport was not an option and executed a forced landing in an open field. He affirmed that during the landing the airplane bounced several times before coming to a stop. The airplane sustained substantial damage to the firewall, forward pressure bulkhead and puncture holes in the airplane skin.

The pilot reported that there were no mechanical failures or anomalies prior to or during the flight that would have prevented normal flight operation.

Probable Cause and Findings

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

The flight crews encounter with un-forecasted freezing rain resulting in an uncontrolled descent, forced landing, and substantial damage to the airplane's firewall, and forward pressure bulkhead.

Findings

Aircraft	Climb rate - Attain/maintain not possible
Aircraft	Altitude - Attain/maintain not possible
Aircraft	Airspeed - Attain/maintain not possible
Environmental issues	Conducive to structural icing - Effect on equipment

Factual Information

History of Flight

Enroute-climb to cruise	Structural icing (Defining event)
Enroute-cruise	Off-field or emergency landing
Landing-flare/touchdown	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	67, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	September 18, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 22, 2015
Flight Time:	(Estimated) 2985 hours (Total, all aircraft), 290 hours (Total, this make and model), 2778 hours (Pilot In Command, all aircraft), 98 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft)		

Pilot-rated passenger Information

Certificate:	Private	Age:	68, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	November 17, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2500 hours (Total, all aircraft), 800 hours (Total, this make and model), 2400 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N113WB
Model/Series:	PA 46 350P	Aircraft Category:	Airplane
Year of Manufacture:	1995	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4622193
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	May 1, 2015 Annual	Certified Max Gross Wt.:	4300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3100.2 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	TIO-540-AE2A
Registered Owner:		Rated Power:	350 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	IXD, 1087 ft msl	Distance from Accident Site:	24 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	45°
Lowest Cloud Condition:		Visibility	4 miles
Lowest Ceiling:	Overcast / 1700 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	-6° C / -8° C
Precipitation and Obscuration:	Moderate - None - Mist		
Departure Point:	OLATHE, KS (IXD)	Type of Flight Plan Filed:	IFR
Destination:	OLATHE, KS (IXD)	Type of Clearance:	IFR
Departure Time:	11:40 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	38.335277,-95.114997(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Chad Landis; Federal Aviation Administration; Wichita, KS
Original Publish Date:	April 5, 2016
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=92603

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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).