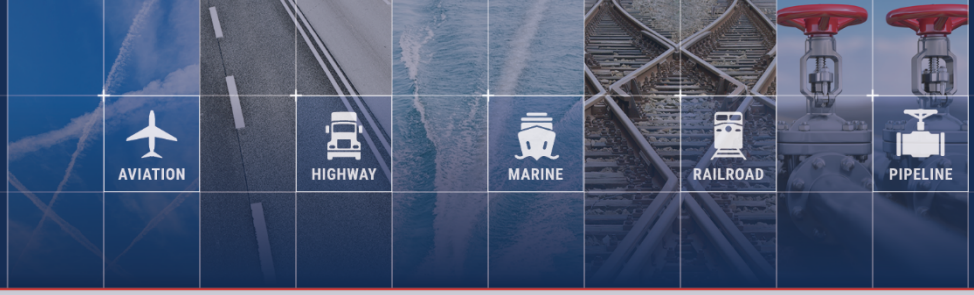

Aviation Investigation Final Report

Location:	Carrol County, Virginia	**Accident Number:**	ERA14LA433
Date & Time:	September 10, 2014, 13:09 Local	**Registration:**	N26105
Aircraft:	Piper J3C 65	**Aircraft Damage:**	Substantial
Defining Event:	VFR encounter with IMC	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was conducting a multi-leg, cross-country flight in an airplane that was not equipped to fly in instrument meteorological conditions (IMC). Visual meteorological conditions prevailed at the departure airport; however, IMC existed along the route of flight. Although the pilot was instrument-rated, he had not completed an instrument proficiency check in 9 years.

The pilot reported that, about 1 hour 30 minutes into the flight, the airplane encountered deteriorating weather conditions and that he then attempted an emergency landing on an interstate highway; the airplane subsequently impacted trees and terrain. The pilot could not recall if he checked the weather conditions before departure. He further reported that there were no mechanical malfunctions or anomalies with the airplane that would have precluded normal operation. The recorded weather at an airport located about 1 mile from the accident site included visibility less than 1/4 statute mile about the time of the accident. An airmen's meteorological information (AIRMET) for mountain obscuration due to clouds and mist was in effect at the time of the accident for the area around the accident site.

Probable Cause and Findings

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

The pilot's failure to maintain clearance from trees during an emergency landing after encountering deteriorating weather conditions. Contributing to the accident was the pilot's poor preflight weather planning, which resulted in an inadvertent encounter with instrument meteorological conditions.

Findings

Environmental issues	Tree(s) - Awareness of condition
Personnel issues	Weather planning - Pilot
Environmental issues	Fog - Use of related info
Aircraft	Altitude - Not attained/maintained
Personnel issues	Monitoring environment - Pilot
Personnel issues	Identification/recognition - Pilot
Environmental issues	Low visibility - Effect on operation
Environmental issues	Fog - Effect on operation
Environmental issues	Low visibility - Use of related info

Factual Information

History of Flight

Emergency descent	VFR encounter with IMC (Defining event)
Emergency descent	Controlled flight into terr/obj (CFIT)

On September 10, 2014, about 1309 eastern daylight time, a Piper J3C-65 Cub, N26105, was substantially damaged during an emergency landing and subsequent in-flight collision with trees and terrain near Carroll County, Virginia. The private pilot was seriously injured. Instrument meteorological conditions prevailed and no flight plan was filed for the flight that originated from Raleigh County Memorial Airport (BKW), Beckley, West Virginia at 1145, and was destined for Smith Reynolds Airport (INT), Winston Salem, North Carolina. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to a Federal Aviation Administration (FAA) Aviation Safety Inspector, the airplane crashed in a remote, wooded area, about 40 nautical miles (nm) west of BKW, at an elevation of about 2,534 feet. Photographs taken by the Virginia State Police revealed that the airplane was intact with the exception of the right wing which was located in a nearby tree. There were compression wrinkles throughout the wings, fuselage, and empennage. The wings also exhibited aft crush damage on the leading edge.

After recovering from his injuries, the pilot was interviewed by the NTSB investigator-in-charge on October 29, 2014. The pilot reported that he was flying across the United States on a month long cross county flight. After he refueled the airplane at BKW, he departed for INT and followed an interstate highway, as was his custom. About 40 nm from his destination, he encountered some "mist" and descended, but the "the mist got heavier." He then configured the airplane for an emergency landing on the interstate and descended between two tree lines, but the airplane impacted a tree, fell to the ground and came to rest in a nose down attitude. The pilot reported that his attention was focused on the interstate and not on the surrounding obstacles. He also remarked that there were no preimpact mechanical malfunctions or anomalies with the airplane. The pilot stated that his usual method for obtaining weather was by utilizing the Internet application Foreflight, but did not recall if he retrieved weather prior to departing BKW.

According to a Virginia State Trooper, the pilot reported that he made the decision to land the airplane after the weather abruptly changed to fog.

A witness reported that the weather at the time was "foggy and rainy." He stated that he was driving southbound on the interstate and observed the airplane to his left on a southerly heading. The airplane appeared to be cruising above the tree tops and "went straight into the trees".

A review of global positioning system data retrieved from an onboard Garmin GPSMAP 296 revealed that the airplane departed BKW at 1137 and started a climb. The airplane followed the interstate at

various altitudes until 1300, when it started a descent from a GPS recorded altitude of about 3,350 feet. At 1308, the airplane leveled off at a GPS altitude of 2,600 feet, and remained in straight and level flight until 1309 when the data ended in the vicinity of the accident site.

A GoPro Hero rugged high definition video recorder was also recovered from the accident site; however, it contained no recorded data.

The pilot held a private pilot certificate with ratings for airplane single engine land and instrument airplane. According to the pilot, he did not possess a current medical certificate and; therefore, was operating the airplane as a sport pilot. At the time of the accident he reported 4,399 total hours of flight experience; 1,423 hours of which were in the accident airplane make and model. The pilot's last instrument proficiency check was during 2005 .

The single-engine, fixed-gear, high wing, reciprocating engine powered airplane, was manufactured in 1939. It was powered by a Continental A75-A 75-horsepower engine, equipped with a Sensenich two-bladed propeller. According to the pilot the airplane was not certified for flight under instrument flight rules.

The National Weather Service (NWS) Boston Area Forecast indicated overcast clouds at 2,500 feet mean sea level (msl) with cloud tops at 7,000 feet, visibility 3-5 statute miles in mist. The weather was forecasted to improve between 1000 and 1300 with scattered clouds at 2,500 feet msl and broken clouds at 4,500 feet. The forecast also included an AIRMET Sierra for mountain obscuration with clouds and mist over the area.

The Washington, D.C. (ZDC) Air Route Traffic Control Center Meteorological Impact Statement (MIS) that was valid from 0729 to 1600 forecasted limited instrument flight rule conditions due to low ceilings, reduced visibility and fog through 1100. The ZDC MIS also described marginal visual flight rule conditions with patchy ceilings and mist across the Washington, D.C. area.

Weather, recorded at Twin County Airport (HLX), elevation 2,694 feet, at 1315, included winds from 180 degrees at 5 knots, visibility 10 statute miles, sky overcast at 700 feet, temperature 19 degrees C, dew point 17 degrees C, an altimeter setting of 30.21 inches Hg. HLX was located 9 nm north of the accident site.

According to a weather report obtained from the Virginia Department of Transportation, the weather recorded about a mile from the accident site, elevation about 2,500 feet, at 1310 included wind calm, air temperature 18 degrees C, dew point 18 degrees C, and visibility 1,030 feet.

Pilot Information

Certificate:	Private	**Age:**	67
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Right
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:	Sport pilot None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	June 4, 2014
Flight Time:	4399 hours (Total, all aircraft), 1423 hours (Total, this make and model), 92 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N26105
Model/Series:	J3C 65 65	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	4051
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	June 7, 2014 Annual	**Certified Max Gross Wt.:**	1170 lbs
Time Since Last Inspection:	694 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4288 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	A-75-8
Registered Owner:	HEIMOS BERNARD F	**Rated Power:**	75 Horsepower
Operator:	HEIMOS BERNARD F	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	HLX,2694 ft msl	**Distance from Accident Site:**	9 Nautical Miles
Observation Time:	13:15 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Overcast / 700 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	180°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	19°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BECKLEY, WV (BKW)	**Type of Flight Plan Filed:**	None
Destination:	WINSTON SALEM, NC (INT)	**Type of Clearance:**	None
Departure Time:	11:45 Local	**Type of Airspace:**	Class E

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	36.636112,-80.720001

Administrative Information

Investigator In Charge (IIC):	Stein, Stephen
Additional Participating Persons:	Jerry Morgan; FAA/FSDO; Charleston, WV
Original Publish Date:	April 27, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=90061