Aviation Investigation Final Report

Location:	New Hudson, Michigan	**Accident Number:**	CEN21LA104
Date & Time:	January 2, 2021, 15:41 Local	**Registration:**	N8347P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Destroyed
Defining Event:	Loss of control in flight	**Injuries:**	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

As the airplane approached the destination, the pilot requested VFR (visual flight rules) flight following and was issued a discrete beacon code. He asked if there were any pilot reports (PIREPs) for icing in the area and was told there had not been any in the last hour. The pilot then requested the VOR-A approach into Y47. The pilot stated that if he missed the approach, he would divert to another airport. The pilot was vectored to intercept the VOR-A final approach course and was given a pilot report from a pilot who landed at a nearby airport who reported the cloud base to be 300 ft with no ice descending through the layers. The accident pilot said he would “give it (the approach) a shot.”

Automatic Dependent Surveillance-Broadcast (ADS-B) data showed the airplane approach the airport at an altitude of about 2,000 ft and 100 knots (kts). It passed over the airport and began to decelerate in a left descending turn to 1,475 ft and 85 kts. The airplane entered a second tighter turn and descended to 1,150 ft and 60 kts. Track data was lost at 1541:20. The last recorded altitude and airspeed were 975 ft and 71 kts. near the accident location.

A residential security camera captured the accident. The sound of an aircraft engine is audible on the recording. The sound goes away and returns, but is louder. Once again, the sound disappears and is heard again with the airplane coming into view in a left wing low, nose low descent. The wings and nose level off just before the airplane impacts the ground in a flat attitude. The airplane slides across the ground, impacts a house, and a fire erupts. The airplane was destroyed during the postimpact fire.

A pilot who was in a hangar at the airport reported hearing the airplane fly over the airport twice. He thought the airplane was trying to land and he reported hearing the engine power increase both times as if the pilot was performing a go-around. This pilot reported that the weather conditions at the time consisted of a low ceiling, “heavy clouds”, light mist, and rain.

A NOTAM (Notice to Air Missions) was issued for the VOR-A approach at the destination airport. Although the NOTAM stated the VOR portion of the approach was unavailable it is unlikely that this played a role in the accident as the pilot had overflown the airport on the approximate approach course and was circling the area when the accident occurred. There was no record that the non-instrument rated pilot obtained a weather briefing or filed a flight plan for his flight.

The pilot had logged 41.5 hours of simulated instrument flight time, 15.2 of those hours were with an instructor. Additionally, he had logged 99.6 hours under actual instrument conditions, 4.8 hour of which were with an instructor, for a total of 141.1 instrument hours. The pilot was not instrument rated and was not trained to fly in the weather conditions that existed during the accident flight.

An examination of the airplane, engine, and related systems revealed no mechanical anomalies that would have precluded normal operations. It is likely that while maneuvering in instrument meteorological conditions while trying to locate the runway, the non-instrument rated pilot failed to maintain the proper airspeed, which resulted in the exceedance of the airplane's critical angle of attack and the airplane experiencing an aerodynamic stall.

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 proper airspeed and his exceedance of the airplane's critical angle of attack, which resulted in an aerodynamic stall. Contributing to the accident was the pilot's lack of an instrument rating and the low visibility at the time of the accident.

Findings

Environmental issues	Clouds - Effect on operation
Environmental issues	Low visibility - Effect on operation
Personnel issues	Qualification/certification - Pilot
Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	Angle of attack - Not attained/maintained

Factual Information

History of Flight

Approach-IFR missed approach	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On January 2, 2021, about 1541 eastern standard time, a Piper PA-24-250 airplane, N8347P, was destroyed when it was involved in an accident near New Hudson, Michigan. The pilot and two passengers were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot and his passengers flew from Oakland Southwest Airport (Y47), New Hudson, Michigan, to Cherokee County Airport (CNI), Canton, Georgia, on December 29, 2020. The accident occurred on the return flight to Y47. There was no record that the pilot obtained a weather briefing or filed a flight plan on the day of the accident. The pilot and his passengers departed CNI at 1221 for the return trip and flew Global Positioning System (GPS) direct at 7,500 ft. The pilot was not instrument rated.

The following is based on Federal Aviation Administration Form 8020-6, Report of Aircraft Accident. At 1238, the pilot contacted Knoxville Air Route Traffic Control Center (ARTCC) and requested VFR (visual flight rules) flight following to Y47 at 7,500 ft. He was issued a discrete beacon code. The pilot was subsequently handed off to Atlanta and Indianapolis ARTCC; Lexington, Cincinnati, Columbus, and Toledo Air Traffic Control Towers (ATCT). At 1452, while talking to Toledo ATCT, the pilot advised he would have to “convert to IFR (instrument flight rules)” to descend to Y47. At 1456, air traffic control asked the pilot if he was ready to “go IFR” and the pilot responded that he was ready. The pilot was cleared direct to Y47 at 7,000 ft and later was told to contact Detroit (DTW) approach control.

At 1513, the pilot contacted DTW approach and was issued the DTW altimeter setting. The pilot asked if there were any pilot reports (PIREPs) for icing in the area. He was told there had not been any in the last hour. The pilot then asked for the VOR-A approach into Y47. He further stated that if he made a missed approach, he would proceed to Oakland County International Airport (PTK), Pontiac, Michigan.

The pilot was cleared to descend to 4,000 ft, then to 3,000 ft. At 1533, he was instructed to fly a heading of 020° to intercept the VOR final approach course to Y47. He was also given a PIREP from a Learjet pilot who had landed at Willow Run Airport (YIP), Ypsilanti, Michigan, located about 16 miles south of Y47. That pilot had reported the cloud base to be 300 ft with no ice descending through the layers. The pilot of N8347P responded that 300 ft “would not

work for Y47." He was then asked what his intentions were, and he replied that he would "give it [the approach] a shot."

At 1535, the pilot was cleared for the VOR -A approach to Y47. [Although the pilot was cleared for the VOR-A approach, the VOR portion of the approach had been NOTAMed (Notice to Air Missions) unavailable. This notice was displayed on the Information Display System (IDS) at the radar position]. The controller told the pilot to change to the airport advisory frequency and to report back to him if he executed a missed approach or cancelled his IFR clearance after landing. This was the last radio contact with the airplane.

According to the Automatic Dependent Surveillance-Broadcast (ADS-B) data the airplane approached Y47 at an altitude of about 2,000 ft and an airspeed of 100 knots (kts). It passed over the airport and decelerated in a left descending turn to 1,475 ft and 85 kts. The airplane entered a second tighter turn and descended to 1,150 ft and 60 kts. Track data was lost at 1541:20. The last recorded altitude and airspeed were 975 ft and 71 kts near the accident location.

A video taken from a home security camera, located at a dwelling across the street from the accident site, captured the accident sequence. The sound of an aircraft engine could be heard on the recording at the video time stamp of about 4:39:28. The sound goes away and returns, but louder, about 4:40:23. Once again, the sound disappears and then can be heard again with the airplane coming into view at 4:41:24 in a left wing low, nose low attitude. The wings leveled off and the nose was raised just before the airplane impacted the ground in a flat attitude. It slid across the ground and collided with a house. The airplane immediately caught fire and the house was set ablaze. No occupants in the house were injured, but a cat perished.

A pilot who was in his hangar at the airport and heard but did not see the airplane reported that it sounded like it was "quite high for landing." He then heard the engine power increase as if the pilot were performing a go-around. He then heard the airplane make a second approach and once again he heard the engine power increase to "full throttle." He reported that he assumed the pilot was performing another go-around, but the airplane did not return.

Pilot Information

Certificate:	Private	**Age:**	60,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	November 15, 2019
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	January 25, 2018
Flight Time:	1190 hours (Total, all aircraft), 25 hours (Last 90 days, all aircraft)		

Copies of the pilot's two logbooks were made available for review. Logbook 1 began on January 20, 2007, and ended on July 3, 2020. Logbook 2 began of July 2, 2020, and ended on November 26, 2020. According to these logbooks, the pilot started taking instrument instruction on April 3, 2007, and flew with an instructor under simulated conditions, logging 10.9 hours. The pilot continued logging simulated instrument time between September 19, 2007, and November 7, 2010, but there were no instructor signatures and no mention of a safety pilot. The simulated time totaled 8.3 hours. The pilot flew three more times with an instructor between July 6 and August 27, 2011, totaling 3.7 hours. Between October 14, 2011, and June 19, 2020, the pilot logged 38 flights under actual instrument conditions totaling 40.6 hours. None of those flights bore an instructor's signature. His last recorded flight review was dated January 25, 2018.

The pilot then switched flight schools. Between July 2, 2020, and November 26, 2020, he flew 13.9 hours under simulated instrument conditions, 0.6 hours of which were with a flight instructor. Additionally, the pilot logged 2.8 hours under actual instrument conditions, none of which were with an instructor.

In summary, the pilot had logged 41.5 hours under simulated instrument conditions, 15.2 of those hours were with an instructor. Additionally, he had logged 99.6 hours under actual instrument conditions, 4.8 hour of which were with an instructor, for a total of 141.1 instrument hours. The last logbook entry indicates the pilot had logged 1,278.8 hours total time. Adding the 3.5 hours for the flight to CNI and the 3.6 hours for the accident flight, the pilot's total flight time was no less than 1,278.8 hours.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N8347P
Model/Series:	PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:	1964	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-3604
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	March 5, 2020 Annual	**Certified Max Gross Wt.:**	2900 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	4844 Hrs as of last inspection	**Engine Manufacturer:**	LYCOMING
ELT:		**Engine Model/Series:**	I0-540-C
Registered Owner:	On file	**Rated Power:**	250 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	PTK,981 ft msl	**Distance from Accident Site:**	13 Nautical Miles
Observation Time:	15:53 Local	**Direction from Accident Site:**	45°
Lowest Cloud Condition:		**Visibility**	8 miles
Lowest Ceiling:	Overcast / 600 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.07 inches Hg	**Temperature/Dew Point:**	1°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Canton, GA (CNI)	**Type of Flight Plan Filed:**	None
Destination:	New Hudson, MI (Y47)	**Type of Clearance:**	IFR;VFR flight following
Departure Time:	12:21 Local	**Type of Airspace:**	Class G

A pilot who was at Y47 when the accident occurred reported the weather conditions "…. were not favorable for flying – fairly low ceiling, heavy clouds, light mist and rain with low temperatures."

Airport Information

Airport:	Oakland Southwest Y47	**Runway Surface Type:**	Asphalt
Airport Elevation:	926 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	08-26	**IFR Approach:**	Global positioning system;VOR
Runway Length/Width:	3128 ft / 40 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	2 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:		**Aircraft Explosion:**	On-ground
Total Injuries:	3 Fatal	**Latitude, Longitude:**	42.510692,-83.626261(est)

The wreckage was later examined by investigators from Piper Aircraft and Lycoming Engines under the supervision of an FAA inspector. The fuel selector was on the right auxiliary tank, the flaps were retracted, and the stabilator trim was between neutral and a slightly nose-up position. There were no preimpact mechanical anomalies that would have precluded normal operations.

Medical and Pathological Information

An autopsy on the pilot was performed by the Oakland Country Medical Examiner’s Office. The cause of death was listed as Multiple Blunt Force Trauma.

Toxicological testing performed at the FAA Forensic Sciences Laboratory found no drugs of abuse.

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	Dave Zwicker; FAA; Belleville, MI Ryan Enders; Lycoming; Williamsport, PA Kathryn Whitaker; Piper Aircraft, Inc
Original Publish Date:	June 8, 2023
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=102480

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.