Aviation Investigation Final Report

Location:	North Canton, Ohio	**Accident Number:**	CEN09FA099
Date & Time:	December 19, 2008, 17:53 Local	**Registration:**	N9299N
Aircraft:	Piper PA-32R	**Aircraft Damage:**	Destroyed
Defining Event:	Aerodynamic stall/spin	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot obtained a weather briefing prior to the flight to Akron-Canton Regional Airport (CAK), Ohio, from College Park, Maryland. During the briefing, the pilot proposed a route of flight at an altitude of 6,000 feet. The briefer told the pilot that the freezing level at CAK at the time of the briefing was about 3,000 to 4,000 feet, but that the it may drop to the surface as the day progressed. The pilot indicated at the beginning of the 20-minute briefing that he was aware of the hazardous weather conditions and he expressed concern about them, but he decided to depart to CAK shortly after he received the briefing.

At the time of the accident, weather observations at CAK indicated broken clouds at 500 feet above ground level (agl), and overcast skies at 100 feet agl. Meteorological analysis showed a high likelihood of encountering supercooled large droplet (SLD) icing in the area. General aviation pilots operating into and out of CAK surrounding the time of the accident all reported icing conditions, with most of the icing occurring between 3,000 to 3,500 feet. The reports also indicated freezing rain. Three of the pilots reported a rapid accumulation of between 1 and 2 inches of ice within a 15-minute period prior to and after the accident. One pilot reported that he required a significant amount of engine power to maintain airspeed and had a hard landing due to ice accumulation on his airplane.

As the accident airplane approached CAK, the local air traffic controller (ATC) issued the pilot a vector to the instrument landing system (ILS) localizer course about two miles from the runway's ILS outer marker. The controller advised the pilot to maintain 3,200 feet until established on the approach, and that the airplane was cleared for the approach. The pilot acknowledged and asked if there were any pilot reports of icing below 6,000 feet in the area.

The controller responded that there were no reports of icing at that time, but asked the pilot to advise if he encountered any. The pilot did not report icing conditions.

The pilot made a gradual left turn to intercept the localizer, and then leveled out near the approach course heading. Although left of the localizer course, he began descending on the approach and stabilized the airplane at an airspeed of just over 100 knots. The controller told the pilot that he was left of the approach course centerline. The pilot acknowledged and reported that he was "correcting." Recorded radar track information showed that the pilot did not correct to the right, but continued to fly a course to the left of, and almost parallel to, the approach course centerline.

The controller then told the pilot that he was "well left" of the approach course. The airplane briefly turned right toward the approach course centerline, but seconds later, the airplane rolled into about a 30-degree left bank, and began turning away from the approach course centerline. While at 2,800 feet, the pilot requested clearance to perform a nonstandard 360-degree turn while about 2-1/2 miles northeast of the airport in order to reestablish the airplane on the approach course (the pilot had commenced the turn before hearing back from the controller). The controller responded that he was unable to approve the pilot's request.

The controller then instructed the pilot to climb and maintain 3,000 feet. The airplane's left bank gradually increased to about 40 degrees at that time. The controller asked the pilot for his present heading and the pilot responded "due north and climbing." The airplane began to climb while remaining in a 30 to 40-degree left bank. The controller instructed the pilot to climb without delay. Pitch increased above 20 degrees with the airplane still in a 30-degree left bank, and with airspeed significantly decreasing. Shortly thereafter, the airplane entered a spiral-like dive as the pilot declared an emergency. The controller advised the pilot to “…maintain altitude. The airport is two miles west of you," but the pilot did not respond and there was no further contact with the airplane. During these last radio transmissions, the airplane was in a continuous left turn with decreasing radius until it abruptly dropped off the radar.

A ground witness saw two bright lights coming almost nose first toward the ground with the engine “roaring.” The airplane impacted the ground in a nose-down and left-wing-low attitude. Postaccident examination of the airplane revealed no anomalies that would have precluded normal operation. An NTSB sound spectrum study of digital audio recording of ATC communications indicated normal engine operation.

Analysis of recorded radar data indicates that the airspeed, roll, and initiation of a climb brought the airplane close to an aerodynamic stall as it was maneuvering in a steep turn following the controller's instruction of "no delay" and the pilot's declaration of an emergency. The airplane subsequently stalled and rapidly descended to the ground. The characteristics of the descent are consistent with an abrupt stall during maneuvering that was likely aggravated by ice accumulation on the airplane.

Risk factors for spatial disorientation were present at the time of the accident, including dark night instrument meteorological conditions and maneuvering flight. The airplane's sequence of sustained turns was conducive to spatial disorientation, specifically a class of vestibular illusions known as somatogyral illusions. Furthermore, the pilot's report that he was headed "due north and climbing" as he placed the airplane into a turn of decreasing radius was inconsistent with his having an accurate awareness of the airplane's orientation.

The pilot reported a total flight time of 510 hours on his October 2007 FAA medical application, of which 50 hours were accumulated in the past 6 months. The pilot's total and recent instrument flight experience could not be determined. The pilot had a history of seasonal allergies, treated with prescription medication that was reported to the FAA. While an over-the-counter sedating antihistamine was found in the pilot's blood during postaccident toxicology testing, the investigation was unable to determine if the pilot was adversely affected by impairment.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot’s inappropriate control inputs as a result of spatial disorientation, which led to an aerodynamic stall and loss of control. Contributing to the accident were the pilot's decision to conduct flight into known icing conditions, ice accumulation that reduced the airplane's aerodynamic performance, and the pilot's failure to initially intercept and establish the airplane on the proper approach course.

Findings

Personnel issues	Use of medication/drugs - Pilot
Personnel issues	Spatial disorientation - Pilot
Aircraft	(general) - Not attained/maintained
Personnel issues	Decision making/judgment - Pilot
Environmental issues	Freezing rain/sleet - Effect on operation
Personnel issues	Aircraft control - Pilot
Aircraft	Heading/course - Not attained/maintained

Factual Information

History of Flight

Approach-IFR initial approach	Course deviation
Approach-IFR initial approach	Other weather encounter
Approach-IFR final approach	Attempted remediation/recovery
Approach-IFR missed approach	Aerodynamic stall/spin (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

HISTORY OF FLIGHT

On December 19, 2008, about 1753 eastern standard time, a Piper PA-32R-301T, N9299N, impacted terrain during a precision approach to runway 23. A post crash fire then ensued destroying the airplane. The airplane impacted the front lawn of a vacant house about two miles east-northeast from Akron-Canton Regional Airport (CAK), Akron, Ohio. Night instrument meteorological conditions prevailed at the time of the accident. The pilot was fatally injured, and there were no ground injuries. The flight departed from College Park Airport (CGS) College Park, Maryland, about 1531 and was returning to CAK at the time of the accident.

A person representing N9299N called the Raleigh Automated Flight Service Station at 1427 to obtain a briefing. The caller stated he was trying to “figure out” when he could return to CAK and was “looking at the possibility” of a departure time of 1500. The briefer asked: “Would you like a standard briefing and just cover everything or you need to just to kind a hit the highlights ?” The caller replied: “ …I don't want to waste your time. Let's figure out if this sounds like a suicide mission or not, and then we'll go from there.” The briefer then stated: “Well, I’ll hit the highlights. If there's something else you want you just let me know.”

The caller provided the briefer with a proposed route of flight with an altitude of 6,000 feet. The caller wanted to know if he would be low enough to be outside or above freezing rain and whether he would arrive at CAK before the weather there went from “bad to worse.” The briefer provided the caller with information from airmet sierra for general IFR conditions as well as mountain obscurations and airmet zulu for icing, which across the route of flight, was for moderate ice from the freezing level to 20,000 feet. Also, a beginning freezing level “guesstimate” was between 7,000 feet and 8,000 feet at the time of the briefing. Towards the northwest, the freezing level increased and then decreased and at the destination it was “close” to 4,000 feet to 5,000 feet. The briefer told the caller that the freezing precipitation seemed to be up toward the north and central Pennsylvania. The briefer told the caller that the radar indicated rain but did not show any frozen or mixed precipitation at the time of the briefing. The briefer stated that there were metars that showed that rain was reaching the surface and the "andrews" metar showed some unknown precipitation was reaching the

surface.

The briefer said that the computer thought that its some type of frozen precipitation, which was usually the case for unknown precipitation, but he didn't think it was the case because of the temperature. The Akron, Ohio, forecast until 1700 was: 1 statute mile (sm) light rain, ceiling 400 feet above ground level (agl) overcast, occasionally 4 sm light rain, ceiling 800 feet agl overcast. The forecast between 1700 and 1800 was: winds 010 degrees at 10 knots, 5 sm visibility, light rain and mist, ceiling 800 agl overcast. At 1800, the forecast was: wind 010 degrees at 12 knots, 4 sm visibility, light freezing drizzle, snow, and mist, ceiling 700 feet agl, overcast. The briefer said that by 1800, the mixed or frozen precipitation would be reaching the surface and a lot of times it could be mixed precipitation. The briefer told the caller that the freezing level at the time of the briefing at Akron, Ohio, was "close" to about 3,000 – 4,000 feet but it may drop as the day progresses. The briefer said that the there was a frontal system with a cold front in western Indiana with a "couple" of low pressure areas. According to the prognostic chart, the low pressure area would be in western Pennsylvania by 1900 and the cold front would have passed through. The briefer said that the temperatures could decrease "fairly quickly." After the briefing, the caller filed a flight plan without an alternate airport.

The briefing ended about 20 minutes after it began. The caller asked several questions regarding the weather throughout the briefing. The pilot then departed on the flight about 45 minutes after receiving the briefing.

According to Federal Aviation Administration (FAA) event summaries, N9299N departed from CGS about 1531 and was in contact with Potomac Terminal Radar Approach Control (TRACON) for the initial part of the flight. N9299N was subsequently handled by Washington Air Route Traffic Control Center (ARTCC), Cleveland ARTCC, and Pittsburgh TRACON before being handed off to CAK TRACON. The flight appeared to be uneventful, except that at 1642, in response to a Cleveland ARTCC request for flight conditions, the pilot reported encountering "moderate chop."

At 1736:19, the CAK Air Traffic Control (ATC) Tower, local controller, instructed the pilot to fly heading 340 degrees for radar vectors to the instrument landing system (ILS) 23 final approach course, which was acknowledged by N9299N. At 1742:34, the local controller instructed N9299N to descend and maintain 3,200 feet. N9299N acknowledged the clearance, and asked if there were any pilot reports of icing below 6,000 feet in the area. The controller responded that there were no reports of icing, but asked the pilot to advise if he encountered any. At 1749:42, the controller transmitted that N9299N was two miles northeast of the EGGII outer marker (the EGGII outer marker is about 5.7 nautical miles from runway 23), instructed N9299N to fly heading 250 degrees to intercept the localizer and maintain 3,200 feet until established, and issued a clearance for the ILS 23 approach, which was read back by N9299N at 1749:52. At 1751:04, N9299N was told to contact CAK tower.

The pilot contacted CAK tower at 1751:16, and was cleared to land on runway 23. The controller also advised N9299N that it was left of the localizer, and N9299N replied,

…correcting.” At 1752:31, the tower controller transmitted, "... you're still well to the left of the localizer sir would you like to go back around for the approach." At 1752:37, N9299N replied “…please repeat.” The tower controller repeated that N9299N was “…still well to the left of the localizer would you like to go back around for the approach.” N9299N replied, "…nine nine November we'd like to correct." The tower controller responded, "roger... two and a half miles from the field cleared to land runway 23 for nine nine." The pilot acknowledged the landing clearance. At 1753:02, N9299N transmitted, "...uh can we do a three sixty and uh reestablish ourselves." The controller responded that he was unable to approve the request, and instructed the pilot to climb and maintain 3,000 feet. The controller asked the pilot for his present heading, and the pilot responded that he was heading "due north and climbing." The controller replied, "... no delay in the climb, climb and maintain 3000." The pilot did not respond. At 1753:47, the controller transmitted, " nine two nine nine November did you copy." At 1753:50, N9299N transmitted, "nine nine November declaring an emergency oh [expletive]." The controller responded, "November nine nine November maintain altitude the airport is two miles west of you." The pilot did not respond. There was no further contact with the aircraft.

According to the National Transportation Safety Board ATC Group Chairman Factual Report, radar plots of N9299N show comparative plots with other aircraft that had flown the ILS 23 approach. These plots depict N9299N as being above and to the left of the approaches flown by the other aircraft.

A witness reported that he was outside of his home when he first heard a “loud” engine sound from a small aircraft. The sound was coming from the north and sounded as though the pilot was trying to accelerate “rapidly.” Suddenly, the witness saw two bright lights coming almost nose first toward the ground with the engine “roaring.” Based upon the witness’ view of the lights, he assumed the airplane was flying west to east. He lost sight of the airplane when it descended below a tree line.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with a single-engine land rating that was issued on June 18, 2004, after he had accumulated a total flight time of 86 hours. On June 19, 2006, he was issued an instrument airplane rating after he had accumulated 282 hours of flight time. A Piper PA-32 airplane was used for the instrument airplane rating examination. According to the pilot’s Airman Medical Certificate application dated October 19, 2007, he reported a total flight time of 510 hours, of which 50 hours were accumulated in the past 6 months. Remains consistent with a pilot’s logbook were found in the wreckage but damage to the logbook precluded documentation of total and recent instrument flight experience.

The pilot had no previous history of accidents, incidents, or enforcement actions.

AIRCRAFT INFORMATION

The 1997 Piper PA-32R-301T, serial number 3257018, airplane was registered on August 21,

2007, to the Sierra-November Aviation Inc, of which was a corporation the pilot was the president. The airplane was powered by a Textron Lycoming TIO-540-AH1A engine, serial number L-9879-61A and was equipped with a Hartzell three-blade controllable pitch propeller, HC-13YR-1RF, serial number HK182A. According to the FAA Type Certificate Data Sheet, the airplane's maximum rated engine/propeller speed was 2,500 rpm.

According to maintenance logbook entries, the engine was overhauled and then installed on November 24, 2004, at an aircraft total time of 1,344.2 hours and a Hobbs time of 1,344.2 hours. The last annual inspections of the airplane and engine were both dated July 24, 2008, at a Hobbs time of 1,727.6 hours.

The airplane was equipped with an auxiliary electrically driven vacuum pump. The airplane was not equipped with an anti-ice/deice system and according to the airplane flight manual was not approved for operations in icing conditions.

METEOROLOGICAL INFORMATION

The National Weather Service (NWS) Surface Analysis Chart for 1900 showed the accident site was located west of an occluded front and in the vicinity of a low pressure trough. Station models north of the low pressure and frontal systems indicated an extensive area of clouds and precipitation in the form of snow, freezing rain, and drizzle. Surrounding that area was an area of marginal visual flight rules (MVFR) conditions the extended over most all of Ohio and Pennsylvania, and Virginia. The closest visual flight rule conditions were depicted without a contour line over extreme southern Ohio and West Virginia, to the south of the accident. MVFR and IFR conditions prevailed along the route and the accident site. The station models in the vicinity of the accident site depicted IFR to MVF condition with overcast ceilings between 400 and 1,100 feet above ground level (agl).

The weather depiction chart for 1700 depicted an area of IFR conditions by a shaded contour line extending north of the warm front across Maryland, Delaware, New Jersey, parts of southern and northern Pennsylvania, New York, and portions of Ohio along the trough of low pressure.

The closest upper air data was from the NWS, Pittsburgh, Pennsylvania, located about 60 miles east-southeast of the accident site at an elevation of 1,224 feet mean sea level (msl). The 1900 sounding indicated several shallow temperature inversions were noted below 18,000 feet associated with a front at approximately 6,000 feet and due to subsidence at 10,500 feet. The sounding had a relative humidity of 75 percent or more at the surface and between approximately 2,000 feet to 7,500 feet, with drier air aloft above the temperature inversions. The precipitable water value was 0.42 inches. The freezing level was identified at 3,906 feet msl, with the temperature profile supporting a light rain to snow mixture at the surface. The temperature and moisture structure of the sounding also supported a high probability of light snow to moderate rime icing conditions between the freezing level at 3,906 feet and 7,500 feet.

The sounding wind profile indicated surface wind from 280 degrees at 10 knots, with little variation in height through 18,000 feet with increasing wind speeds immediately above the boundary layer, which indicated a potential for low-level wind shear and turbulence. A low-level wind maximum was identified at 4,500 feet with winds from 275 degrees at 45 knots and winds exceeding 50 knots above 7,000 feet.

Geostationary Operations Environmental Satellite number 13 imaging depicted a radiative cloud top temperature over the accident site was observed at -5.6 degrees Celsius (C), which according to the Aircraft Meteorological Data Relay (AMDAR) Sounding over CAK indicated cloud tops in the range of 6,500 feet.

CAK was equipped with an automated surface observation system (ASOS) at an elevation of 1,228 feet msl. CAK ASOS weather observations recorded for the following times were:

1735: wind - 280 degrees at 9 knots; visibility - 10 miles; sky condition - broken 700 feet above ground level agl, overcast 1,400 feet agl; temperature – 1 degree C; dew point - -1 degree C; altimeter 29.77 inches of mercury.

1751: wind - 300 degrees at 11 knots; visibility - 9 miles; sky condition - broken 500 feet agl, overcast 1,000 feet agl; temperature – 1 degree C; dew point - -1 degree C; altimeter 29.78 inches of mercury

1809: wind - 300 degrees at 10 knots; visibility – 2 1/2 miles, mist; sky condition - overcast 400 feet agl, overcast 1,000 feet agl; temperature – 1 degree C; dew point - -1 degree C; altimeter 29.78 inches of mercury.

Visibility continued to deteriorate and at 1815 was reported as 1 1/2 miles in mist.

Pilot Statements Regarding Icing.

Several pilots who operated into or out of KCAK on the day of the accident provided statements regarding the weather conditions they encountered. Their statements are summarized as follows:

Report at 1312 – A pilot who departed in a single-engine turboprop Cessna 208B Caravan stated that he entered the clouds at 400 feet, and started picking up light, mostly clear ice, in the clouds, with tops at 6,100 feet. At 8,000 feet, he noted the temperature of 4 degrees C.

Report at 1741 – A pilot flying a multiengine Beechcraft Baron (BE58) attempted a localizer approach to runway 25 at KAKR. The pilot went missed approach and executed an ILS runway 23 approach at KCAK. He indicated that, at 7,000 feet the temperature was between 5 to 7 degrees C, with cloud tops at 6,500 feet. The aircraft began to accumulate ice entering the clouds from 6,500 feet to the surface, and he also reported encountering rain in the clouds. At

3,000 feet, the temperature was near freezing and he encountered mixed icing, which accumulated very rapidly with 1 1/4 inches of ice on portions of the wing. He reported that he broke out of the clouds between 400 and 500 feet agl.

Report at 1808 – A pilot flying a Cessna Citation business jet (C550) flew the approach immediately after the accident airplane. The flight diverted from Wayne County Airport (KBJJ) located approximately 20 miles east of KCAK due to low ceilings and visibility in fog. The pilot indicated the cloud tops were about 6,000 feet, and he encountered icing conditions at approximately 3,000 feet down to 400 to 500 fee. He stated that he actuated the deicing boots twice on approach. He estimated accumulating up to 1 inch of ice on the approach, and indicated a ceiling of 200 feet agl and visibility 1/2 mile.

Report at time unknown on the evening of the accident - A pilot flying a multiengine Cessna Golden Eagle (C421) near the time of the accident reported cloud tops near 5,000 feet. The pilot stated that he descended into a solid layer of clouds and began encountering icing "right away" below 3,500 feet, with moderate rime type ice. They had difficulty with the landing gear and had increased power setting to maintain their airspeed, which they attributed to the icing conditions. The aircraft landed hard due to the amount of ice accumulation on the airplane. The pilot estimated 1 to 2 inches of ice on the unprotected areas of the airplane, and "a lot" of ice on the unprotected areas of the windshield. He indicated the ceiling heights as 500 to 600 feet and visibility 2 to 3 miles, when he landed, and he provided an icing report to the air traffic control tower's ground controller

WRECKAGE AND IMPACT INFORMATION

The main wreckage of the airplane was located 40 degrees 56.025 minutes North 081 degrees 22.690 minutes West at an elevation of 1,163 feet or about 2.6 miles east northeast from the approach end of runway 23 at CAK. The main wreckage consisted of the fuselage, wings, empennage, engine, and propeller, all of which were located in the yard of a home. Damage to the home included thermal damage. Ground scarring in the yard of the home was oriented along an approximate heading of 120 degrees. The airplane came to rest in an upright position with the landing gear extended.

Examination of the airplane revealed that the left wing sustained greater relative damage than the right wing. The empennage was attached to approximately 13 feet of the aft fuselage, which was separated from the cabin. The left horizontal stabilizer displayed greater relative damage than the right horizontal stabilizer. The outer portion of left horizontal stabilizer was separated about midspan of the attached horizontal stabilizer which exhibited inward crushing at the separation. The forward portion of the fuselage and instrument panel exhibited damage from impact forces and fire.

The propeller and hub were separated from the crankshaft flange. Two propeller blades remained attached to the propeller hub while one propeller blade was separated from the propeller hub. One of the two propeller blades that remained attached to the hub displayed S-

shaped bending.

A separated portion of instrument panel that contained START, BATTERY, and ALTERNATOR rockers switches had the BATTERY and ALTERNATOR switches in the on position. The flight instruments were separated from the panel and/or sustained impact damage.

Examination of the flight control system revealed no anomalies that would have precluded normal operation.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot was issued a third class Airman Medical Certificate on November 19, 2007, with the following limitation: “holder must wear corrective lenses when exercising the privileges of this medical certificate.” The Airman Medical Certificate application indicated “Yes” in response to “Do You Currently Use Any Medication” and noted the use of only fexofenadine/pseudoephedrine, azelastine nasal spray, and minocycline. The application also noted “yes” to “Hay fever or allergy” and indicated visits to health care providers for “adult acne” and “seasonal allergies.” No other medications or medical conditions were noted.

An autopsy of the pilot was conducted by the Stark County Coroner on December 20, 2008.

The FAA’s Final Forensic Toxicology Fatal Accident Report of the pilot reported that putrefaction was present and 79 (mg/dL, mg/hg) ethanol detected in muscle, 16 (mg/dL, mg/hg), and no ethanol detected in brain. Chlorpheniramine was detected in blood, liver, gastric, and heart. Pseudoephendrine was detected in liver.

TESTS AND RESEARCH

A Sound Spectrum Study of digital audio from approach and local control was performed by the NTSB Vehicle Recorder Division. During the 1749:52 transmission by N9299N acknowledging a clearance for the ILS 23 approach, the engine/propeller speed was 2,458 rpm. After ATC transmitted that N9299N was “…still well to the left of the localizer would you like to go back around for the approach,” N9299N made a 1752:37 transmission during which the engine/propeller speed was 2,458 rpm. During the 1753:50 transmission by N9299N declaring an emergency, the engine/propeller sound was 2,497 rpm. A review of each transmission indicated no evidence of aural cockpit warnings.

The engine was shipped to Textron Lycoming where it underwent disassembly and examination due to impact and post crash fire damage, which precluded an engine test run. Disassembly of the engine revealed that the internal components were wetted with oil and none of the engine components and accessories displayed signatures that would have precluded normal operation.

Post accident examination of the airplanes autopilot system and vacuum systems revealed no anomalies that would have precluded normal operation.

[This factual report was modified on January 26, 2010]

Pilot Information

Certificate:	Private	**Age:**	45,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:**	Yes
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	November 19, 2007
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	510 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N9299N
Model/Series:	PA-32R 301T	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:		**Serial Number:**	3257018
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:	July 24, 2008 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	1344 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	TIO-540-AH1A
Registered Owner:	Sierra-November Aviation Inc.	**Rated Power:**	300 Horsepower
Operator:	Pilot	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	CAK,1228 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	17:51 Local	**Direction from Accident Site:**	250°
Lowest Cloud Condition:	Clear	**Visibility**	9 miles
Lowest Ceiling:	Broken / 500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	300°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.78 inches Hg	**Temperature/Dew Point:**	1°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	College Park, MD (CGS)	**Type of Flight Plan Filed:**	IFR
Destination:	North Canton, OH (CAK)	**Type of Clearance:**	IFR
Departure Time:	15:31 Local	**Type of Airspace:**	

Airport Information

Airport:	Akron-Canton Regional Airport CAK	**Runway Surface Type:**	Asphalt
Airport Elevation:	1228 ft msl	**Runway Surface Condition:**	
Runway Used:	23	**IFR Approach:**	ILS
Runway Length/Width:	7597 ft / 150 ft	**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	40.933887,-81.378051

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Julio Galarza; Federal Aviation Administration; North Olmsted, OH Phil Goettel; Honeywell; Weatherford, TX George Hollingsworth; Piper; Staunton, VA James Childers; Lycoming; Williamsport, PA Daniel Scholz; Parker Hannifin Corporation; Elyria, OH
Original Publish Date:	January 28, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=73125