

Location:	Olathe, KS	Accident Number:	CEN22FA119
Date & Time:	February 13, 2022, 10:20 Local	Registration:	N2445F
Aircraft:	PIPER AIRCRAFT INC PA46-500TP	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On February 13, 2022, at 1020 central standard time, a Piper PA-46-500TP, N2445F, was destroyed when it was involved in an accident at the Johnson County Executive Airport (OJC), Olathe, Kansas. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part91 personal flight.

It was reported that the airplane had recently undergone an annual inspection and the pilot was to fly the airplane back to his home base of operations. An instrument flight rules (IFR) flight plan had been filed for the flight from OJC to the Albuquerque International Sunport Airport (ABQ), Albuquerque, New Mexico. Preliminary communication data indicated that the pilot contacted the OJC controller and the OJC controller issued an IFR clearance for the flight to ABQ. Once the airplane had taxied to the runway, the OJC controller issued a takeoff clearance with instructions to fly a heading of 340° to an altitude of 5,000 ft. msl. About one minute later the pilot transmitted "we gotta come back around four five foxtrot", and the tower controller immediately cleared the airplane for landing. No further transmissions were received from the accident airplane.

Flight track data for the accident flight showed that the airplane began the takeoff roll on runway 36 at OJC at 1019:42. The airplane accelerated, reaching a peak ground speed of 80 kts about 2,250 ft. down the 4,097 ft. long runway. The airplane then drifted slightly to the right and slowed before turning back toward the left. The airplane's groundspeed continued to decrease throughout the remainder of the data. The final recorded position was about 100 ft southeast of the initial impact point.



Figure 1. Overview of accident flight track with time, altitude, ground speed, and heading information.



Figure 2. Final segment of accident flight track in profile view looking from SW to NE.

The airplane impacted the ground on the extended runway centerline about 400 ft. past the departure end of runway 36. The airplane came to rest upright with its fuselage oriented in a southeasterly direction. There was a postimpact fire that burned the wings and forward fuselage aft to the rear spar carry-through structure. The fuselage aft of the cabin, including the empennage, was intact. There was a fan shaped burn area on the ground that extended from the aircraft wreckage in a southerly direction.

The airplane and engine were recovered for further examination.



Figure 3. The aircraft wreckage at the accident site looking south

Aircraft and	Owner/Operator	Information
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Aircraft Make:	PIPER AIRCRAFT INC	Registration:	N2445F
Model/Series:	PA46-500TP	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:			

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Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation:	KOJC,1070 ft msl	Observation Time:	09:53 Local
Distance from Accident Site:	0 Nautical Miles	Temperature/Dew Point:	-2°C /-12°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Direction:	15 knots / , 360°
Lowest Ceiling:	None	Visibility:	10 miles
Altimeter Setting:	30.35 inches Hg	Type of Flight Plan Filed:	IFR
Departure Point:	Olathe, KS	Destination:	Albuquerque, NM (ABQ)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	38.847598,-94.737584

Administrative Information

Investigator In Charge (IIC):	Brannen, John
Additional Participating Persons:	David Woods; FAA FSDO; Kansas City, MO Jon Hirsh; Piper; Wichita, KS
Note:	



Location:	Fostoria, OH	Accident Number:	CEN22FA131
Date & Time:	February 22, 2022, 22:41 Local	Registration:	N3952W
Aircraft:	Piper PA-32-260	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On February 22, 2022, about 2241 eastern standard time, a Piper PA32 airplane, N3952W, was destroyed when it was involved in an accident near Fostoria, Ohio. The pilot and passenger were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations (CFR)* Part 91 personal flight.

The flight was conducted as an instrument flight rules (IFR) flight from Effingham County Memorial Airport (1H2), Effingham, Illinois, to Findlay Airport (FDY), Findlay, Ohio. The filed IFR flight plan stipulated a cruise altitude of 9,000 ft mean sea level (MSL), an estimated time enroute of 1 hour and 28 minutes, and 4 hours of fuel on board.

A review of archived Federal Aviation Administration (FAA) automatic dependent surveillance broadcast (ADS-B) data revealed that the airplane departed 1H2 about 1956 central standard time, climbed to about 7,000 ft MSL, and proceeded on a relatively direct track toward DOYET, the initial approach fix for the RNAV/GPS runway 25 instrument approach, as shown in Figure 1.



Figure 1: Published Instrument Approach Procedure

After passing DOYET, the airplane turned left about 45°, consistent with a teardrop entry into the procedure turn, before it turned back right, and paralleled the inbound course of the procedure turn. About 4 nautical miles (nm) from DOYET, the airplane turned right, as if to intercept the inbound course, but descended rapidly in a spiral and impacted terrain on a 340° heading (see Figure 2).

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Figure 2: Instrument Approach with Flight Track Overlay

A review of commercially available communications data revealed that the last confirmed communication between the accident airplane and air traffic control (ATC) took place when ATC instructed the pilot to cross DOYET at or above 3,000 ft and cleared them for the RNAV runway 25 approach, to which the pilot read back the clearance and altitude restriction. Shortly thereafter, ATC attempted to contact the pilot and subsequently issued a low altitude alert, but no reply or acknowledgement was received.

A witness inside their residence described hearing an airplane low near their house. They described the noise as a loud engine or high RPM engine followed by silence. Another nearby witness saw the lights of the airplane but did not hear anything because they were in a car with the radio on. They said that at first sight, the airplane was estimated between 300 and 500 ft above ground level (AGL). When they lost sight of the airplane as it descended behind houses, they estimated the altitude as between 150 and 250 ft AGL.

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The airplane first impacted a field in a relatively flat attitude and continued the 340° track into the trees where it collided with multiple trees and became highly fragmented. Flight control continuity could not be established due to the highly fragmented nature of the wreckage, but all lengths of control cables were accounted for at the accident location. All major pieces of the airplane were observed at the accident location.

A detailed examination is pending.

Aircraft Make: N3952W Piper **Registration:** Model/Series: Aircraft Category: PA-32-260 Airplane Amateur Built: Operator: On file Operating Certificate(s) None Held: **Operator Designator Code:** Meteorological Information and Flight Plan Conditions at Accident Site: IMC Condition of Light: Night **Observation Facility, Elevation:** KFDY,812 ft msl **Observation Time:** 03:53 Local 11°C /7°C Distance from Accident Site: **15 Nautical Miles** Temperature/Dew Point: Lowest Cloud Condition: Wind Speed/Gusts, Direction: 11 knots / , 230° Lowest Ceiling: Broken / 8000 ft AGL Visibility: 10 miles **Altimeter Setting:** 29.92 inches Hg Type of Flight Plan Filed: IFR **Departure Point:** Effingham, IL (1H2) **Destination:** Findlay, OH (FDY) Wreckage and Impact Information Crew Injuries: 1 Fatal Aircraft Damage: Destroyed **Passenger Injuries:** 1 Fatal Aircraft Fire: None **Ground Injuries:** Aircraft Explosion: None **Total Injuries:** Latitude, 41.14139,-83.377247 2 Fatal Longitude:

Aircraft and Owner/Operator Information

Administrative Information

Investigator In Charge (IIC):	Williams, David
Additional Participating Persons:	Alexander McAninch; FAA; Cleveland, OH Jon Hirsch; Piper Aircraft; Vero Beach, FL David Harsanyi; Lycoming Engines; Williamsport, PA
Note:	

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This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

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Location:	Pond Creek, OK	Accident Number:	CEN22FA145
Date & Time:	March 17, 2022, 16:38 Local	Registration:	N8357Y
Aircraft:	Piper PA-30	Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On March 17, 2022, about 1638 central daylight time, a Piper PA-30 airplane, N8357Y, was destroyed when it was involved in an accident near Pond Creek, Oklahoma. The pilot and 2 passengers were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Preliminary radar and Automatic Dependent Surveillance-Broadcast (ADS-B) data indicated that the airplane first appeared at 1509 about 1.5 nautical miles west of the Mineral Wells Regional Airport (MWL), Mineral Wells, Texas. The airplane tracked north and climbed initially to a cruise altitude of 8,500 ft and then later climbed to 16,500 ft. The airplane began a descent after it passed over Vance Air Force Base (END), Enid, Oklahoma, and turned momentarily to the east. The airplane then turned west and back to the north while it descended. The ground speed decreased from over 200 kts to under 100 kts. About 1631, and 5 miles southwest of Pond Creek, Mode C position reporting data was lost followed by the loss of all track data.

The airplane was not in contact, nor was it required to be in contact, with Air Traffic Control.



Figure 1. ADS-B Flight Track.



Figure 2. Radar Depiction of the End of the Flight Track.

A witness in the area reported that he heard what sounded like engines revving. He looked up and saw the airplane come straight down in a right-hand nose down spin. He followed the airplane until he could no longer see it. He reported that the tail of the airplane came off the airplane just before he lost sight of it.

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This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

The accident site was located across several fields about 6 miles southwest of Pond Creek. The airplane main wreckage was located on the west side of a creek bed in a field. The elevation of the accident site was about 1,100 ft and the terrain was predominately flat and consisted of tall grass. The airplane main wreckage consisted of the forward fuselage, cabin, and baggage compartment, left and right inboard wings, left and right engines, and nacelles, and came to rest inverted. The wreckage was crushed aft and fragmented and showed evidence of a near vertical impact.

The aft fuselage and empennage consisted of the vertical stabilizer and rudder. The inboard sections of the horizontal stabilators were broken and held to the main wreckage by the flight control and trim cables. Both wings were broken about 5 ft outboard of the nacelles. The broken sections showed upward bending, aft twisting, and fractures consistent with overload failures. Several impact marks and paint transfers were found along the leading edge of the vertical stabilizer indicative of a component striking it before ground impact.

Outboard sections of the left and right wings and outboard tip tanks were located about 600 ft southsoutheast of the main wreckage. Also located in this area were the left and right propellers. An outboard section of the left wing was in a field about 1,146 ft west-northwest of the main wreckage. Pieces of wing skin, cowlings, plexiglass, and the outboard sections of the left and right horizontal stabilators were found in adjacent fields west and northwest of the main wreckage.

The left propeller hub was broken open and one propeller blade was broken out. The blade showed no damage. The blade that remained with the hub showed S-bending, chordwise scratches, and trailing edge gouges. Two inches of the blade's tip was missing. The hub was attached to the flange and 3 inches of the left engine crankshaft. The right propeller was also attached to the flange and about 3 inches of the right engine crankshaft. Both blades were bent slightly forward and showed chordwise scratches and trailing edge gouges.

The wreckage was recovered and transported to a secure facility for further examination.

Aircraft and Owner/Operator Information			
Aircraft Make:	Piper	Registration:	N8357Y
Model/Series:	PA-30	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			

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This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation:	KWDG,1167 ft msl	Observation Time:	16:45 Local
Distance from Accident Site:	17 Nautical Miles	Temperature/Dew Point:	21.1°C /7.2°C
Lowest Cloud Condition:	Scattered / 50 ft AGL	Wind Speed/Gusts, Direction:	4 knots / , 190°
Lowest Ceiling:	Overcast / 90 ft AGL	Visibility:	10 miles
Altimeter Setting:	29.64 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Mineral Wells, TX (MML)	Destination:	NE

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	36.628657,-97.887604 (est)

Administrative Information

Investigator In Charge (IIC):	Bowling, David
Additional Participating Persons:	Jaime Pagan; Federal Aviation Administration; Oklahoma City, OK Jonathon Hirsch; Piper Aircraft, Incorporated; Vero Beach, FL David Harsanyi; Lycoming Engines; Williamsport, PA
Note:	



Location:	Athens, GA	Accident Number:	ERA22FA223
Date & Time:	May 11, 2022, 18:53 Local	Registration:	N8007P
Aircraft:	Piper PA-24-250	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On May 11, 2022, about 1853 eastern daylight time, a Piper PA-24-250, N8007P, was substantially damaged when it was involved in an accident near Athens, Georgia. The private pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to a flight instructor, the pilot had recently purchased the airplane and wanted to fly with an instructor to familiarize himself with the RayJay turbocharger system before flying home to Texas. The pilot told him he had completed a checkout in a PA-24 in Texas, but it was not equipped with a turbocharger. Two days before the accident, they departed and planned to climb to 10,000 ft and utilize the turbo system, but the engine was not developing full power and the manifold pressure was low. They returned to the airport and maintenance personnel found a loose wire that was grounding one of the magnetos. The next day, the engine performance had improved, but it was still not producing adequate manifold pressure and maintenance personnel subsequently replaced the loose wire. During the next flight, the crew was radioed and told the engine was backfiring, so they landed and returned the airplane to maintenance. On the morning of the accident, the spark plugs were cleaned, gapped, tested, and reinstalled. The fuel mixture was adjusted at the fuel servo to obtain a 50 rpm rise and manifold pressure increased to 26 inches. An engine runup was performed and the airplane was returned to service.

A review of preliminary flight track data revealed that the airplane departed Triangle North Executive Airport (LHZ), Louisburg, North Carolina, about 1619. The airplane flew on a generally southwest heading between about 4,000 to 5,000 ft mean sea level (msl) for about 2 hours 20 minutes. About 23 nautical miles east the Athens/Ben Epps Airport (AHN), Athens, Georgia, the airplane completed two circles to the right and then continued on a southwesterly heading in a gradual descent toward AHN.

About 7 miles east of AHN the pilot contacted air traffic control and was instructed to land runway 27. About 1 mile from the runway the pilot declared may-day and stated he had lost all engine power, there were no further transmissions form the pilot. The last track data was observed at 1852, as the airplane descended through 925 ft mean sea level (msl), about 200 ft above ground level.

Examination of the accident site revealed that the airplane impacted a wooded area on a residential property about 3/4 of a mile from the approach end of runway 27. The wreckage debris path was about 50 ft long and oriented on a magnetic heading of 070°. There was an extensive postimpact fire and all major structural components of the airplane were located within the debris field.

Flight control cable continuity was established from the control inputs to the bellcranks, and then to the control surfaces. The propeller remained attached to the engine crankshaft flange, and minor scratches were present along the leading edge of the blades. The fuel flow divider and fuel injector nozzles were all intact, unobstructed, and contained fuel. The engine driven fuel pump and fuel lines contained fuel, and the fuel pump was impact damaged.

Both magnetos were removed and manually rotated. The left magneto produced spark on all leads. The right magneto failed to produce spark and the hold down nuts would grind when rotated; when disassembled the shaft was off center due to impact.

The engine was manually rotated and internal continuity was confirmed. The turbocharger system remained attached, the left turbocharger vane spun freely, the right turbocharger vane was impact damaged.

The wreckage was retained for further examination.

Aircraft Make:	Piper	Registration:	N8007P
Model/Series:	PA-24-250	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Day
Conditions at Accident Site: Observation Facility, Elevation	VMC : AHN,802 ft msl	Condition of Light: Observation Time:	Day 18:51 Local
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site:	VMC : AHN,802 ft msl 0 Nautical Miles	Condition of Light: Observation Time: Temperature/Dew Point:	Day 18:51 Local 28°C /12°C
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site: Lowest Cloud Condition:	VMC : AHN,802 ft msl 0 Nautical Miles Clear	Condition of Light: Observation Time: Temperature/Dew Point: Wind Speed/Gusts, Directio	Day 18:51 Local 28°C /12°C n: / ,
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site: Lowest Cloud Condition: Lowest Ceiling:	VMC : AHN,802 ft msl 0 Nautical Miles Clear None	Condition of Light: Observation Time: Temperature/Dew Point: Wind Speed/Gusts, Directio Visibility:	Day 18:51 Local 28°C /12°C n: / , 10 miles
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site: Lowest Cloud Condition: Lowest Ceiling: Altimeter Setting:	VMC : AHN,802 ft msl 0 Nautical Miles Clear None 30.08 inches Hg	Condition of Light: Observation Time: Temperature/Dew Point: Wind Speed/Gusts, Directio Visibility: Type of Flight Plan Filed:	Day 18:51 Local 28°C /12°C n: / , 10 miles None

Aircraft and Owner/Operator Information

ERA22FA223

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	33.949344,-83.317294 (est)

Administrative Information

Investigator In Charge (IIC):	Hill, Millicent
Additional Participating Persons:	Ryan Enders; Lycoming; Williamsport Damian Galbraith; Piper; Vero Beach, FL Danny Cox; FAA/FSDO; Atlanta, GA
Note:	



Location:	Broomfield, CO	Accident Number:	CEN22FA208
Date & Time:	May 22, 2022, 11:49 Local	Registration:	N85CT
Aircraft:	Piper PA-32-260	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On May 22, 2022, about 1149 mountain daylight time, a Piper PA-32-260, N85CT, was substantially damaged when it was involved in an accident near Broomfield, Colorado. The pilot and pilot-rated passenger sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to automatic dependent surveillance-broadcast (ADS-B) information obtained from a private source, the airplane departed Erie Municipal Airport (EIK) on Runway 15. About 3,000 ft from the departure end of the runway, the airplane made a left turn, descended, and impacted terrain.

Two experienced pilots that lived along the airplane's flight path reported hearing abnormal engine noises. The first pilot, who was located about 800 ft before the departure end of Runway 15, observed the airplane fly past about 50 to 100 ft above ground level (agl). About 5 seconds later, he heard several popping noises.

The second pilot was located about 1,000 ft to the west of the accident site and reported hearing a "loud carburetor cough" followed a few seconds later by a "quieter carburetor cough". Within 10 seconds, he heard the airplane impact the ground.

A third witness located about 2,000 ft northeast of the accident site observed the airplane in a climb about 50 ft agl with a high nose attitude. The airplane subsequently turned left and descended. The witness did not observe the airplane impact the ground.

The airplane impacted a grassy area of a residential community. About 35 ft beyond the initial impact, six propeller strike marks spaced about 1 ft apart were located on a paved road. The airplane bounced and subsequently impacted a large tree about 100 ft from the propeller strike marks, which resulted in the engine/cockpit area separating from the remainder of the fuselage.

The airplane was retained for further examination.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N85CT
Model/Series:	PA-32-260	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(Held:	(s) None
Operator Designator Code:			
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation	: KEIK,5132 ft msl	Observation Time:	11:55 Local
Distance from Accident Site:	1 Nautical Miles	Temperature/Dew Po	oint: 12°C /-1°C
Lowest Cloud Condition:		Wind Speed/Gusts, D	Direction: 8 knots / , 190°
Lowest Ceiling:	Broken / 4600 ft AGL	Visibility:	10 miles
Altimeter Setting:	30.2 inches Hg	Type of Flight Plan F	filed: None
Departure Point:	Erie, CO (EIK)	Destination:	Erie, CO (EIK)
Wreckage and Impact I	nformation		
Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude,	39.996526,-105.04271

Administrative Information

Investigator In Charge (IIC):	Folkerts, Michael
Additional Participating Persons:	Lorenzo Robledo; Flight Standards District Office; Denver, CO Troy Helgeson; Lycoming Engines; Williamsport, PA Kathryn Whitaker; Piper Aircraft; Vero Beach , FL
Note:	

Longitude:

CEN22FA208



Location:	Seagraves, TX	Accident Number:	CEN22FA211
Date & Time:	May 24, 2022, 07:00 Local	Registration:	N78466
Aircraft:	Piper PA-12	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On May 24, 2022, about 0700, a Piper PA-12 airplane, N78466 sustained substantial damage when it was involved in an accident near Seagraves, Texas. The pilot sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to local authorities and family acquaintances, the pilot had been flying in the local area for several weeks with aspirations to become an agricultural pilot. During those weeks, the airplane had been observed by several local persons to be flying at low altitude and performing "ag-type maneuvers" over the fields. The airplane wreckage was located by a farmer about 1150, and there were no witnesses to the accident.

Postaccident examination of the accident site revealed the airplane impacted the terrain in a nose and right-wing low attitude. The initial ground scar was consistent with the propeller, engine, forward fuselage, left and right wings. The airplane sustained substantial damage to the fuselage, wings, and empennage (see Figure 1.).



Figure 1. Accident airplane.

Examination of the airplane revealed flight control continuity was established from the cockpit to all flight control surfaces. The engine remained partially attached to the firewall and was unable to be manually rotated due to damage to the engine crankcase. The propeller blades displayed forward twisting deformation. The airframe and engine revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N78466
Model/Series:	PA-12	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation	KGNC,3315 ft msl	Observation Time:	07:15 Local
Distance from Accident Site:	15 Nautical Miles	Temperature/Dew Point:	15°C /14°C
Lowest Cloud Condition:		Wind Speed/Gusts, Direction	on: 7 knots / , 90°
Lowest Ceiling:	Overcast / 2800 ft AGL	Visibility:	10 miles
Altimeter Setting:	29.85 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Seagraves, TX (F97)	Destination:	Seagraves, TX
Wreckage and Impact I	nformation		
Crew Injuries:	1 Fatal	Aircraft Damage: Substa	antial

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	32.922179,-102.62558 (est)

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Steven White ; FAA FSDO; Lubbock, TX Mark Platt; Lycoming Engines; Williamsport, PA

Note:



Location:	North Myrtle Beach, SC	Accident Number:	ERA22FA243
Date & Time:	May 28, 2022, 14:14 Local	Registration:	N4421M
Aircraft:	Piper PA-12	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Banner tow		

On May 28, 2022, at 1414 eastern daylight time, a Piper PA-12, N4421M, was sustained substantial damage when it was involved in an accident near North Myrtle Beach, South Carolina. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 banner tow flight.

Witnesses standing on the flight line at Grand Strand Airport (CRE), North Myrtle Beach, South Carolina, stated that airplane approached to pick up a banner, pitched up and maintained a steep angle of attack until the airplane stalled. The left wing dropped down, and airplane made a near vertical descent and impact.

The accident site was located 126 ft to the right side of runway 23, midfield, and about 300 ft away from the banner pick up zone. Both wings exhibited accordion style crushing. The propeller separated at the engine shaft and was buried about 2 ft in the ground. One propeller blade exhibited chordwise paint abrasion, "S" bending and longitudinal twisting toward the blade face. The other propeller blade exhibited chordwise paint abrasion. Both fuel tanks were breached. Flight control continuity was established to all flight controls. The instrument panel was located under the engine and all instruments were damaged with no useful information able to be attained.

The engine was disassembled, and it was noted that there were no accessory drive splines installed in the engine accessory case, so the engine crankshaft could not be rotated by hand. The right-side cylinders No. 1 and No. 3 were removed to provide visual access to the engine internal components. Continuity of the crankshaft, camshaft and valve train were confirmed by visual observation. The interiors of all four cylinders were examined with no anomalies noted.

The company president stated that the pilot was a long-term employee with the company and had over 15,000 hours flying this type of banner tow airplanes.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N442	21M
Model/Series:	PA-12	Aircraft Category:	Airp	lane
Amateur Built:				
Operator:		Operating Certificate(s) Held:) None	e
Operator Designator Code:				
Meteorological Informa	tion and Flight Plan			
Conditions at Accident Site:	VMC	Condition of Light:		Day
Observation Facility, Elevation	: KCRE,33 ft msl	Observation Time:		14:35 Local
Distance from Accident Site:	0 Nautical Miles	Temperature/Dew Poi	int:	28°C /21°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Dir	rection:	9 knots / , 180 $^\circ$
Lowest Ceiling:	None	Visibility:		10 miles
Altimeter Setting:	29.88 inches Hg	Type of Flight Plan Fil	ed:	None
Departure Point:	North Myrtle Beach, SC	Destination:		North Myrtle Beach, SC
Wreckage and Impact I	nformation			
Crew Injuries:	1 Fatal	Aircraft Damage:	Substantia	l
Passenger Injuries:		Aircraft Fire:	None	

Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	33.811535,-78.725278

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Jason Author; FAA; SC Mike Childers; Lycoming ; Atlanta, GA
Note:	



Location:	Panama City, FL	Accident Number:	ERA22FA261
Date & Time:	June 6, 2022, 16:10 Local	Registration:	N160LL
Aircraft:	Piper PA-28RT-201	Injuries:	2 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

On June 6, 2022, about 1610 central daylight time, a Piper PA-28RT-201, N160LL, was substantially damaged when it was involved in an accident near Panama City, Florida. The pilot and one passenger were fatally injured and another passenger sustained serious injuries. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

The morning of the accident, the airplane arrived at Northwest Florida Beaches International Airport (ECP), Panama City, Florida, and parked on a local fixed based operator (FBO) ramp at 0941. About 1100, the FBO moved the airplane closer to the edge of the ramp because the pilot and passengers were not returning until later in the day.

A review of security camera video revealed that the pilot returned to the airplane about 1530. He opened the baggage compartment, entered and exited the cockpit multiple times, walked around the front of the airplane, and only stopped in front of each wing, never the engine or cowling, until the two passengers arrived at 1541. At 1551, the airplane began to taxi and exited the FBO ramp.

According to preliminary Automatic Dependent System Broadcast (ADS-B) data, which began at 1551:55, the airplane began the takeoff roll about 1606. After the airplane reached a peak altitude of about 1,200 ft mean sea level (msl) it began to descend and initiated a 180° left turn. The airplane completed the turn, continued to descend, and impacted trees and terrain about 1.7 miles from the threshold of runway 34. The ADS-B data ended about 190 ft south of the main wreckage.



Figure 1. Preliminary ADS-B data of the accident flight track. The flight path is in yellow.

The airplane came to rest upright in an area of dense brush at an elevation of 25 ft. All major components of the airplane were located in the vicinity of the main wreckage. The leading edge of both wings exhibited impact damage along the entire span. The flaps were extended to 40° and the landing gear was in the extended position. The left side of the empennage was partially impact separated and was bent to the right side of the airplane. The horizontal stabilator, vertical stabilizer, and rudder all remained attached to the empennage. Flight control cable continuity was established from the cockpit to the flight control surfaces. Oil was noted along the right bottom side of the fuselage.

Examination of the engine revealed a hole in the crankcase near the No. 4 cylinder. The engine was disassembled and continuity of the crankshaft was confirmed. There were no anomalies noted on the main journals of the crankshaft. The No. 4 connecting rod journal exhibited thermal damage and bearing material was found welded/smeared to the crankshaft journal. The No. 4 connecting rod cap, connecting rod bolts, and bearing pieces were found in the oil sump along with other metallic debris and a trace amount of oil. The oil drain plug remained seated and safety wired to the oil sump. The oil pump rotated freely by hand. It was disassembled and no scoring was noted on the oil pump gears or the housing. The oil pressure sensor was separated from the engine. The copper line was fractured at the fitting to the accessory section of the crankcase. The copper line and oil pressure sensor were retained for further examination.

Examination of the pavement in the parking area of the FBO revealed a trail of oil drops that led to a small puddle of oil where the airplane was initially parked. A second larger area of oil staining that measured about 6 ft by 6 ft, was found at the 2nd parking location (where the

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airplane had been moved by the FBO personnel), which was where the pilot conducted his walk-around and loaded passengers before he started the engine for taxi and takeoff.



Figure 2. View of large pool of oil where airplane was sitting at engine start. Measuring tape indicated the pool was about 6 ft long.

According to a copy of the most recent annual inspection, which was completed on May 11, 2022, the airplane had a tachometer time of 508.6 hours. At the time of the annual inspection, a new avionics system was installed which included a Dynon Skyview HDX and a Dynon EFIS-D10A. Both units were retained and sent for data download at the NTSB Recorders Laboratory.

According to a flight log located in wreckage, on June 5, 2022, the airplane had a tachometer time of 511.5 hours. Furthermore, on May 25, 2022, a flight was performed by the pilot, and it indicated "Fly Test" next to his name.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N160LL
Model/Series:	PA-28RT-201	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			

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This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation:	ECP,69 ft msl	Observation Time:	15:53 Local
Distance from Accident Site:	2 Nautical Miles	Temperature/Dew Point:	30°C /22°C
Lowest Cloud Condition:	Scattered / 5000 ft AGL	Wind Speed/Gusts, Direction:	10 knots / , 190°
Lowest Ceiling:	None	Visibility:	10 miles
Altimeter Setting:	29.85 inches Hg	Type of Flight Plan Filed:	
Departure Point:	Panama City, FL (ECP)	Destination:	Orlando, FL (ORL)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal, 1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal, 1 Serious	Latitude, Longitude:	30.323999,-85.775898

Administrative Information

Investigator In Charge (IIC):	Kemner, Heidi
Additional Participating Persons:	Kevin Atkins; FAA/FSDO; Birmingham, AL Damian Galbraith; Piper Aircraft; Vero Beach, FL Mike Childers; Lycoming Engines; Williamsport, PA
Note:	



Location:	Challis, ID	Accident Number:	WPR22LA238
Date & Time:	June 26, 2022, 19:45 Local	Registration:	N1231C
Aircraft:	Piper PA-20-135	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On June 26, 2022, about 1945 mountain daylight time, a Piper PA-20-135, N1231C, was substantially damaged when it was involved in an accident near Challis, Idaho. The pilot and passenger were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

A friend of the pilot reported that he and the accident pilot were camping at Johnson Creek (3U2), Yellow Pine, Idaho. Earlier in the day they had flown to Lower Loon Creek Airstrip (C53), Challis, Idaho, and due to the density altitude, they waited to depart from C53 until later that evening for the return flight to 3U2. He further added that at the time of departure, the density altitude was indicating about 6,200 ft. He observed the accident airplane depart to the north, climb, and then turn back toward the runway about 1930. He last observed the accident airplane on a southbound heading. Shortly after departing from C53, he observed smoke, which he believed to be a small ground fire. After landing and refueling at McCall Municipal Airport (KMYL), he continued his flight to 3U2 where he expected to meet with the accident pilot and passenger. They had not arrived, and he reported N1231C as missing.

First responders located the airplane wreckage by air the following day about 1 ½ miles north of C53. On June 28, they accessed the accident site and reported that the airplane had impacted steep rising mountainous terrain at an elevation of about 4,200 ft mean sea level (msl) on an approximate southerly heading. The main wreckage came to rest upright about 30 ft below the first identified point of impact and was mostly consumed by fire. All major structural components of the airplane were observed at the accident site.

The wreckage was recovered to a secure location for further examination.



Figure 1: Overview of the accident site location.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N1231C
Model/Series:	PA-20-135	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Dusk
Observation Facility, Elevation:	KLLJ,5040 ft msl	Observation Time:	19:55 Local
Distance from Accident Site:	32 Nautical Miles	Temperature/Dew Point:	30°C /-2°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Direction:	/,
Lowest Ceiling:	None	Visibility:	10 miles
Altimeter Setting:	30.21 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Challis, ID (C53)	Destination:	Yellow Pine, ID (3U2)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	Fire at unknown time
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	44.822667,-114.82533

Administrative Information

Investigator In Charge (IIC):	Gutierrez, Eric
Additional Participating Persons:	Kevin Harvey; Federal Aviation Administration; Boiise, ID
Note:	The NTSB did not travel to the scene of this accident.



Location:	Oklahoma City, OK	Accident Number:	CEN22LA303
Date & Time:	July 2, 2022, 08:29 Local	Registration:	N270SA
Aircraft:	Piper PA-28-140	Injuries:	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

On July 2, 2022, about 829 central daylight time, a Piper PA-28-140 airplane, N270SA, sustained substantial damage when it was involved in an accident near Oklahoma City, Oklahoma. The pilot sustained serious injuries and the passenger was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations (CFR)* Part 91 personal flight.

The pilot reported that after takeoff from runway 18 at the Sundance Airport (HSD), Oklahoma City, Oklahoma, the airplane did not perform as it normally would. He stated that as the airplane climbed above the height of the nearby houses, the airspeed and altitude began to decrease. Unable to climb, he allowed the airplane to drift west to avoid "putting anything in danger." As he began a right turn, he lowered the nose to remain under transmission lines, but the airplane seemed to immediately "fall out of the sky." The airplane subsequently impacted the ground and slid to a stop, which resulted in substantial damage to both wings and the fuselage.

Several witnesses described seeing the airplane low to the ground, not climbing, and in a right turn before it impacted the ground.

A detailed wreckage examination is pending.

An crart and Owner/O	And and owner/operator information		
Aircraft Make:	Piper	Registration:	N270SA
Model/Series:	PA-28-140	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:			

Aircraft and Owner/Operator Information

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CEN22LA303

This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation:	KPWA,1280 ft msl	Observation Time:	07:53 Local
Distance from Accident Site:	4 Nautical Miles	Temperature/Dew Point:	26°C /20°C
Lowest Cloud Condition:		Wind Speed/Gusts, Direction:	6 knots / , 180°
Lowest Ceiling:	Broken / 11000 ft AGL	Visibility:	10 miles
Altimeter Setting:	29.97 inches Hg	Type of Flight Plan Filed:	
Departure Point:		Destination:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Serious	Latitude, Longitude:	35.593286,-97.705942

Administrative Information

Investigator In Charge (IIC):	Williams, David
Additional Participating Persons:	Kathryn Whitaker; Piper Aircraft; Vero Beach, FL Adam Brandt; FAA; Oklahoma City, OK Troy Helgeson; Lycoming Engines; Denver, CO
Note:	The NTSB did not travel to the scene of this accident.



Location:	St. Jacob, IL	Accident Number:	CEN22FA298
Date & Time:	July 2, 2022, 11:35 Local	Registration:	N5235P
Aircraft:	Piper PA-24-250	Injuries:	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

On July 2, 2022, at 1135 central daylight time, a Piper PA-24-250, N5235P, was involved in an accident near St. Jacob, Illinois. The airplane sustained substantial damage. The airline transport pilot received serious injuries and a private pilot was fatally injured. The airplane was operated by the private pilot under Title 14 Code of Federal Regulations Part 91 as a personal flight.

A witness stated that he saw the airplane had made several takeoff and landings prior to the accident. He heard the airplane taking off again and said the "engine started to sputter right after it lost power, in and out couple of times." The right wing then dropped down, and the airplane started to rotate clockwise as viewed from above. The airplane impacted terrain near the departure end of runway 13.

The airplane wreckage was retained for further examination.

Aircraft Make:	Piper	Registration:	N5235P
Model/Series:	PA-24-250	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			

Aircraft and Owner/Operator Information

Jperator Designator Code:

CEN22FA298

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation:	BLV,459 ft msl	Observation Time:	11:32 Local
Distance from Accident Site:	12 Nautical Miles	Temperature/Dew Point:	24°C /22°C
Lowest Cloud Condition:		Wind Speed/Gusts, Direction:	/,
Lowest Ceiling:	Broken / 1700 ft AGL	Visibility:	5 miles
Altimeter Setting:	30.05 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	St. Jacob, IL	Destination:	St. Jacob, IL

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Serious	Latitude, Longitude:	38.728889,-89.803056 (est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Robert Prenger; Federal Aviation Administration, St Louis FSDO; St. Ann, MO Mark Platt; Lycoming Engines; Williamsport, PA Jonathon Hirsch; Piper Aircraft; Vero Beach, FL
Note:	



Location:	Mount Pleasant, TX	Accident Number:	CEN22FA299
Date & Time:	July 3, 2022, 22:44 Local	Registration:	N1403X
Aircraft:	Piper PA-32-300	Injuries:	1 Fatal, 3 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

On July 3, 2022, at 2244 central daylight time, a Piper PA-32-300 airplane, N1403X, was destroyed when it was involved in an accident near Mt. Pleasant, Texas. The pilot and two passengers were seriously injured. The pilot-rated passenger was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Automatic Dependent Surveillance – Broadcast (ADS-B) data revealed that the flight departed from the Memorial Field Airport (HOT), Hot Springs, Arkansas, about 2145, and proceeded direct to the Mt. Pleasant Regional Airport (OSA), Mt. Pleasant, Texas. At OSA, the pilot entered the airport traffic pattern on a left base leg for runway 17 and subsequently became established on final approach about 1.5 miles from the runway. The final ADS-B data point was received at 2243:45. The airplane was about 0.42 miles from the runway arrival threshold at that time.

The airplane impacted trees and terrain about 0.40 miles from the runway 17 arrival threshold. The right wing separated, and the outboard 4-foot section of the right wing was suspended in a tree about 50 ft above ground level. The right-wing tip was resting on the ground near the tree. Tree branches exhibiting fresh breaks were also near the initial tree strike. The remaining inboard section of the right wing was separated at the root and located along the debris path.

A ground impact path began about 160 ft from the initial tree strike and extended to the main wreckage. The main wreckage was located about 320 ft from the initial tree strike. The main wreckage consisted of the fuselage, empennage, left wing, engine, and propeller. The fuselage was inverted and resting on the left wing which was separated at the root.



Figure 1 – Flight Path / Accident Site

CEN22FA299

This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N1403X
Model/Series:	PA-32-300	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:	N/A		
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Night
Observation Facility, Elevation	: KOSA,363 ft msl	Observation Time:	22:50 Local
Distance from Accident Site:	1 Nautical Miles	Temperature/Dew Point:	29°C /23°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Direction	on: 4 knots / 0 knots, 100°
Lowest Ceiling:	None	Visibility:	10 miles
Altimeter Setting:	30 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Hot Springs, AR (HOT)	Destination:	Mt. Pleasant, TX (OSA)
Wreckage and Impact In	nformation		
Crew Injuries:	3 Serious	Aircraft Damage: Destro	byed

Crew Injuries:	3 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 3 Serious	Latitude, Longitude:	33.11068,-94.96414

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Steve Moody; FAA Flight Standards; Irving, TX Jon Hirsch; Piper Aircraft Co. ; Vero Beach, FL Mark Platt; Lycoming Engines; Williamsport, PA
Note:	



Location:	Middle Twp, NJ	Accident Number:	ERA22FA315
Date & Time:	July 16, 2022, 09:35 Local	Registration:	N3703M
Aircraft:	Piper PA-12	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Banner tow		

On July 16, 2022, about 0935 eastern daylight time, a Piper PA-12, N3703M, was substantially damaged when it was involved in an accident near Middle Twp., New Jersey. The commercial pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 banner-tow flight.

According to the operator, who witnessed the accident, the pilot was hired in late May 2022. The airplane was completely fueled prior to the accident flight. On the accident flight, the pilot departed runway 32 and flew a left traffic pattern to pick up the banner at the approach end of runway 14, which was normal procedure. The airplane descended toward the banner but missed the haul line during the pickup attempt. The airplane then climbed nose-high and stalled, spinning right and impacting the runway. Engine noise was consistent throughout the accident sequence.

The wreckage came to rest nose-down, oriented about a 320° magnetic heading, and no debris path was observed. The wreckage remained intact. Both wings exhibited leading edge damage and buckling with the left wing exhibiting more damage than the right. The ailerons remained attached to their respective wing. The empennage remained intact and canted right. Flight control continuity was confirmed from all flight control surfaces to the cockpit. Measurement of the horizontal stabilizer trim jackscrew corresponded to a mid-range position between neutral and full nose-up. The cockpit area was crushed, but the pilot's 4-pt harness remained latched and was cut by rescue personnel.

The engine remained attached to the airframe with both propeller blades attached to the hub. One propeller blade was undamaged while the other exhibited s-bending and leading-edge gouging. The top spark plugs were removed from the engine. Their electrodes were intact and gray in color, except for the No. 4 spark plug, which was oil soaked. The rocker covers were removed, and oil was observed throughout the engine. Both magnetos were removed from the engine and sparked at all leads when rotated manually. When the propeller was rotated manually, crankshaft, camshaft, and valve train continuity were confirmed to the rear

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accessory section of the engine and thumb compression was attained on all cylinders. The carburetor butterfly valve was in the open position. The carburetor was then disassembled. Its floats and needle remained intact, and the fuel screen was absent of debris.

Aircraft Make:	Piper	Registration:	N37	03M
Model/Series:	PA-12	Aircraft Category:	Airp	olane
Amateur Built:				
Operator:		Operating Certificate(s) Held:) Non	e
Operator Designator Code:				
Meteorological Informa	tion and Flight Plan			
Conditions at Accident Site:	VMC	Condition of Light:		Day
Observation Facility, Elevation	: WWD,23 ft msl	Observation Time:		09:30 Local
Distance from Accident Site:	3 Nautical Miles	Temperature/Dew Poi	nt:	26°C /22°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Dir	ection:	/,
Lowest Ceiling:	None	Visibility:		10 miles
Altimeter Setting:	30.13 inches Hg	Type of Flight Plan Fil	ed:	None
Departure Point:	Middle Twp, NJ	Destination:		Middle Twp, NJ
Wreckage and Impact I	nformation			
Crew Injuries:	1 Fatal	Aircraft Damage:	Substantia	ıl
Passenger Injuries:		Aircraft Fire:	None	
Ground Injuries:		Aircraft Explosion:	None	
Total Injuries:	1 Fatal	Latitude, E Longitude:	39.064843	,-74.90856
Administrative Informat	ion			
Investigator In Charge (IIC):	Gretz, Robert			
Additional Participating Persons	Dennis Petry; FAA/FSDO; Phil Ryan Enders; Lycoming Engine	adelphia, PA es; Williamsport, PA		

Aircraft and Owner/Operator Information

Note:

ERA22FA315

This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.



Location:	Las Vegas, NV	Accident Number:	ERA22FA318
Date & Time:	July 17, 2022, 12:04 Local	Registration:	N97CX (A1); N160RA (A2)
Aircraft:	Piper PA 46-350P (A1); Cessna 172N (A2)	Injuries:	2 Fatal (A1); 2 Fatal (A2)
Flight Conducted Under:	Part 91: General aviation - Personal (A2)	(A1); Part 91: General	aviation - Instructional

On July 17, 2022, about 1204 pacific daylight time, a Piper PA-46-350P airplane, N97CX, and a Cessna 172N airplane, N160RA, were destroyed when they were involved in an accident near Las Vegas, Nevada. The two pilots in the PA-46, and the flight instructor and student pilot in the Cessna 172, were fatally injured. The PA-46 was operated as a Title 14 *Code of Federal Regulations (CFR)* Part 91 personal flight, and the Cessna 172 was operated as a Title 14 *CFR* Part 91 instructional flight.

Both airplanes were maneuvering to land at North Las Vegas Airport (VGT), Las Vegas Nevada, when the accident occurred. N97CX had been instructed by air traffic control (ATC) to fly left traffic for runway 30L and N160RA had been instructed to fly right traffic for runway 30R. The airplanes collided about 0.25 nautical miles from the approach end of runway 30R. Figure 1 shows a simplified flight path diagram for the accident flights based on Federal Aviation Administration Automatic Dependent Surveillance – Broadcast (ADS-B) data.



Figure 1. ADS-B Flight Paths for N97CX (PA-46) and N160RA (Cessna 172)

N97CX was operating as an instrument flight rules (IFR) flight and had departed from Coeur d'Alene Airport - Pappy Boyington Field (COE), Coeur d'Alene, Idaho about 0943, destined for VGT. N160RA was operating as a visual flight rules (VFR) training flight at VGT.

N160RA was in the VFR traffic pattern for runway 30R, flying a right-hand traffic pattern and communicating with the VGT local controller. N97CX was inbound from the north on an IFR flight plan from COE.

At 1156:08, the Nellis Radar Approach Control air traffic controller cleared N97CX for the visual approach and instructed the pilot to overfly VGT at midfield for left traffic to runway 30L. Air traffic control responsibility for the flight was transferred from Nellis Radar Approach Control to VGT at 1158:26.

At 1158:43, the pilot of N97CX contacted the VGT local controller and reported "descending out of 7,600 feet msl for landing on three zero left and ah Nellis said to cross midfield." The VGT local controller responded, "continue for three zero left." The pilot acknowledged and stated, "okay continue for runway three zero left nine seven charlie x-ray we will cross over midfield."

At 1200:03, the pilot of N160RA requested a "short approach." The VGT local controller transmitted "zero romeo alpha short approach approved runway three zero right cleared for the option," which was acknowledged by N160RA.

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At 1201:36, the VGT local controller transmitted "november seven charlie x-ray runway three zero left cleared to land." The pilot of N97CX responded "three zero left cleared to land nine seven charlie x-ray."

At 1201:57, the VGT local controller transmitted "seven charlie x-ray I think I said it right runway three zero left seven charlie x-ray runway three zero left."

At 1202:02 the pilot of N97CX transmitted "yeah affirmative runway three zero left that's what i heard nine seven charlie x-ray".

There were no further transmissions from either airplane.

Examination of N97CX revealed that the airplane impacted in a nose low, right wing down attitude. The landing gear was down, and the right main landing gear was displaced outboard. The right wing displayed an impact separation around wing station (WS) 93. The right inboard wing section remained attached to the fuselage but was canted aft. The right wing flap was fractured about midspan; the inboard section remained attached to the wing and was found in the extended position. The outboard half of the flap was found about 10 ft forward of the right wing.

The right wing leading edge displayed a series of crush impressions to the leading edge about 2.5 ft outboard of the wing root. The impressions contained flakes of green primer, and cuts to the de-ice boot.

The outboard right wing section remained attached to the inboard wing by the aileron control cables. The aileron remained attached to the outboard wing section but was impact damaged. The outboard leading edge was crushed up and aft. The right wingtip fairing and pitot tube were also impact separated. Longitudinal scratches were visible along the right side of the fuselage.

Examination of N160RA revealed that, the airplane had impacted terrain in a left-wing and nose-low attitude before coming to rest inverted on a 304° magnetic heading. Both inboard portions of the wings sustained thermal damage in the areas surrounding the fuel tanks, and the cabin and fuselage, except for the cabin roof, were consumed by a post-impact fire.

Blue paint transfer was observed on the lower surface of the separated outboard left wing and the lower surface of the left wing flap. Black de-ice boot material transfer was observed on the lower surface of the separated outboard left wing, the lower surface of the attached portion of the left wing at approximately WS 100, and for an approximate 5 ft long distance outboard of the strut attach point, along the lower leading edge.

About 4 ft of the left wing, which included the left aileron, was separated from the left wing, and was found on the edge of a culvert just south of the main wreckage. The left outboard wing section aft of the forward spar was found to be separated near the aileron-flap junction. The left wing flap was found to be separated from the wing.

The wreckage of both airplanes was retained for further examination.

Aircraft and Owner/Operator Information (A1) Aircraft Make: Piper **Registration:** N97CX Model/Series: PA 46-350P Aircraft Category: Airplane Amateur Built: On file Operating Certificate(s) Operator: None Held: **Operator Designator Code:** Aircraft and Owner/Operator Information (A2) Aircraft Make: **Registration:** N160RA Cessna Model/Series: Aircraft Category: 172N Airplane Amateur Built: Operator: Operating Certificate(s) None Held: **Operator Designator Code:** Meteorological Information and Flight Plan Conditions at Accident Site: VMC Condition of Light: Day **Observation Facility, Elevation:** KVGT,2190 ft msl **Observation Time:** 11:53 Local Distance from Accident Site: Temperature/Dew Point: 38°C /12°C **0** Nautical Miles Lowest Cloud Condition: Clear Wind Speed/Gusts, Direction: 4 knots / , 320 $^\circ$ Lowest Ceiling: None Visibility: 10 miles 29.91 inches Hg Type of Flight Plan Filed: Altimeter Setting: **Departure Point: Destination:** Wreckage and Impact Information (A1) **Crew Injuries:** 2 Fatal Aircraft Damage: Destroyed **Passenger Injuries:** N/A Aircraft Fire: None Ground Injuries: N/A Aircraft Explosion: None 2 Fatal 36.210703, -115.19444 Total Injuries: Latitude, Longitude:

Wreckage and Impact Information (A2)

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	36.210703,-115.19444

Administrative Information

Investigator In Charge (IIC):	Gunther, Todd
Additional Participating Persons:	Carey Atnip; FAA / FSDO; Las Vegas, NV Beverley Harvey; TSBC; Ottawa Robert Duma; Pratt & Whitney Canada; St. Hubert Kathryn Whitaker; Piper Aircraft; Vero Beach, FL Jennifer Barclay; Textron Aviation; Wichita, KS Brandon Johnson; NATCA; Washington, DC
Note:	



Location:	Seguin, TX	Accident Number:	WPR22FA264
Date & Time:	July 22, 2022, 18:45 Local	Registration:	N8542W
Aircraft:	Piper PA-28-235	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On July 22, 2022, about 1845 central daylight time, a Piper PA-28-235 airplane, N8542W, was destroyed when it was involved in an accident near Seguin, Texas. The pilot and passenger were fatally injured. The airplane was operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The accident flight departed Elm Creek Airpark (0TX6), Seguin, Texas, with a reported destination of Natchitoches Regional Airport (IER), Natchitoches, Louisiana. A friend of the passenger reported that he was in contact with the passenger via a video call prior to the aircraft departing on the evening of the accident flight. The passenger stated to the friend that they were having maintenance issues and that the pilot could not get the engine started. During the video conversation, the friend could see that the engine cowling was open. The exact maintenance issues with the airplane were never discussed. A photo was also taken by the passenger and showed the right side of the airplane, with the pilot on the wing near the open airplane entry door. Additionally, the photo showed that the engine cowling's right side aft latch appeared not flush with the cowling. Shortly after, another photo of the airplane was captured by a local resident as it crossed in front of his hangar, about 400 ft down runway 14 after it started its departure roll. The photo shows that the right side upper cowling was not secured. Another resident reported that on the previous day, the accident airplane had stopped near their residence located near the departure end of runway 14. The pilot had said to the resident that his cowling had opened and that he needed to secure it before taking off. The airplane departed a few minutes later and returned about 45 minutes later.

Examination of the accident site revealed that a postaccident fire occurred consuming some of the wreckage. All major structural components of the airplane were located. The upper engine cowling and portions of the lower cowling were also located.

Preliminary radar track data revealed a track consistent with the accident airplane departing runway 14 at 0TX6 and entering a left turn. The accident site is about 1/4 mile east of 0TX6 and 1,000 ft east of the last radar hit. Altitude could not be determined with the preliminary target data. No mechanical anomalies or malfunctions were noted during the wreckage examination.

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WPR22FA264

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8542W
Model/Series:	PA-28-235	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:			
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation	: KBAZ,648 ft msl	Observation Time:	18:51 Local
Distance from Accident Site:	13 Nautical Miles	Temperature/Dew Point:	37°C /16°C
Lowest Cloud Condition:	Few / 8500 ft AGL	Wind Speed/Gusts, Direction	on: 13 knots / , 150°
Lowest Ceiling:		Visibility:	10 miles
Altimeter Setting:	29.89 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Seguin, TX	Destination:	Natchitoches, LA (IER)
Wreckage and Impact I	nformation		
Crew Injuries:	1 Fatal	Aircraft Damage: Destr	oyed

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	Unknown
Total Injuries:	2 Fatal	Latitude, Longitude:	29.502565,-97.991575

Administrative Information

Investigator In Charge (IIC):	Swick, Andrew
Additional Participating Persons:	Troy Helgeson; Textron Lycoming; Denver, CO Jon Hirsch; Piper Aircraft; Wichita, KS
Note:	

WPR22FA264



Location:	Cynthiana, KY	Accident Number:	ERA22FA354
Date & Time:	August 3, 2022, 17:25 Local	Registration:	N88550
Aircraft:	Piper J3C-65	Injuries:	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

On August 3, 2022, about 1725 eastern daylight time a Piper J3C-65, N88550, was substantially damaged when it was involved in an accident at Cynthiana-Harrison County Airport (0I8), Cynthiana, Kentucky. The passenger sustained fatal injuries and the private pilot was seriously injured. The airplane was operated as a Title 14 Code of Federal Regulations (CFR) Part 91 personal flight.

About 1700, the pilot and his passenger, who were seated in the aft and front seat respectively, departed the airport for a brief personal flight. About 10 minutes after departure, witnesses reported seeing an "intense" thunderstorm coming in from the north. The storm consisted of a "wall cloud," heavy rain that they could observe several miles out, as well as a rapid wind shift accompanied by an increase in wind speed. In addition, the temperature dropped about "fifteen degrees" over a short period of time.

Around the same time, an additional witness reported that the airplane returned to the airport and flew an unusually low airport traffic pattern. The airplane approached the airport at a low altitude, just over the trees from the north, then making a left turn to join the left downwind for runway 29; it then made a low base leg to final approach turn over the runway numbers when it suddenly descended in a left spin before impacting the ground adjacent to the runway. Almost immediately after impact, heavy rain and wind began at the airport.

The wreckage came to rest in the grass, about 20 ft to right of runway 29. The wreckage path was compact, oriented on a magnetic heading of 331° from the initial impact point, and all major components of the engine and airframe were accounted for at the scene.

Examination of the airplane revealed that the fuselage was buckled, and the left wing was severely crushed and broken aft. The magnetos switch was on BOTH and the fuel selector was in the ON position. The empennage was bucked and bent to the left. The entire engine assembly was bent upwards and canted to the right with the left side of the engine covered in dirt. Both wood propeller blades were splintered although they remained attached to the center hub and crankshaft flange; one blade was shattered down to the spinner with the opposing blade shattered outboard of the erosion strip. There were several dozen propeller fragments in a 50 ft radius of the main wreckage. There were red navigation light lens

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fragments on the runway edge followed by a primary impact crater that contained propeller fragments and small pieces of wreckage. The cockpit occupiable space was severely compromised in the forward seat area and no shoulder harnesses were observed.

The fuel tank remained intact and contained about 5 gallons of aviation fuel. Flight control continuity was confirmed on all control surfaces through their respective control cables and into the cockpit. The engine crankshaft was rotated 720° with no binding noted. Valvetrain continuity was confirmed, there was thumb compression and suction in each of the cylinders, and both magnetos created spark at each of the posts.

Aircraft Make:	Piper	Registration:	N88550
Model/Series:	J3C-65	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation	: LEX,962 ft msl	Observation Time:	17:40 Local
Distance from Accident Site:	25 Nautical Miles	Temperature/Dew Point	t: 30°C /19°C
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Dire	ction: 12 knots / , 220°
Lowest Ceiling:	None	Visibility:	10 miles
Altimeter Setting:	29.98 inches Hg	Type of Flight Plan Filed	d:
Departure Point:	Cynthiana, KY	Destination:	Cynthiana, KY
Wreckage and Impact I	nformation		
Crew Injuries:	1 Serious	Aircraft Damage: Su	bstantial
Passenger Injuries:	1 Fatal	Aircraft Fire: No	one
Ground Injuries:	N/A	Aircraft Explosion: No	one

Latitude,

Longitude:

Aircraft and Owner/Operator Information

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Total Injuries:

ERA22FA354

38.365936, -84.281355

This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

1 Fatal, 1 Serious

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence
Additional Participating Persons:	Stephen Travis; FAA FSDO; Louisville, KY Damian Galbraith; Piper; Vero Beach, FL
Note:	

ERA22FA354



Location:	Arctic Village, AK	Accident Number:	ANC22FA066
Date & Time:	August 11, 2022, 11:52 Local	Registration:	N3937M
Aircraft:	Piper PA-12	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On August 11, 2022, at 1152 Alaska daylight time, a Piper PA-12 airplane, N3937M, was substantially damaged when it was involved in an accident near the Marsh Fork Canning River, about 40 nautical miles (nm) northwest of Arctic Village, Alaska. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot was reportedly on a solo hunting trip that began on August 7, 2022, and was returning home when the accident occurred. There were no reported distress calls or other communications from the pilot. On August 12, 2022, about 1140, a pilot spotted the wreckage about 2.5 nm west of Marsh Strip, a gravel strip located next to the Marsh Fork Canning River. The pilot who discovered the wreckage stated that on the afternoon of the accident, there was significant wind shear with sustained wind at least 20 kts and gusting to at least 30 kts. He stated that the wind gusts were violent, which made him park his airplane on a strip about 15 miles east of Marsh Strip and wait for the wind to subside. He added that another pilot who flew northbound over Marsh Strip about 1430 on the day of the accident reported that the wind was very turbulent.

A review of the data from a pilot's GPS revealed that at 1149 the airplane departed Marsh Strip to the south and then made a right turn into the valley as seen in Figure 1. The flight track continued up the valley about 300 to 400 ft above ground level (agl) for about 2.5 nm, then made a sharp left turn and descended to the ground. Figure 1 shows the end of the GPS flight track and the estimated accident location overlaid onto Google Earth. The weather and lighting conditions in Google Earth are not necessarily the weather and lighting conditions present at the time of the recording. Due to data buffering on the GPS unit, the data recording may have ended before the accident event.



Figure 1. GPS flight track and accident location on Google Earth (time = coordinated universal time (UTC), altitude = ft above mean sea level (msl), groundspeed = kts)

The accident site featured an initial impact crater about 20 yards west of the airplane and the wreckage path was on a heading of 064°. On the right side of the impact crater was a disturbance in the ground that contained an inspection panel from the right wing. The main wreckage came to rest facing southeast and remained mostly intact (Figure 2).



Figure 2. Aerial view of accident site

Examination of the wreckage at the accident site revealed that the cockpit area was crushed upward and aft. The airplane was canted left with the left wing folded back underneath the fuselage. The left wing sustained downward crushing to the wing tip. The right wing sustained outboard leading edge damage and was bent upward near midspan. Flight control continuity was confirmed from all flight control surfaces, through a few impact separations, to the cockpit controls. The flaps were partially extended. The horizontal stabilizer trim jackscrew position corresponded to a full nose-up position. There was a strong smell of fuel near the front of the airplane and the fuel tanks and fuel lines were compromised. The gascolator was intact and about half full of greenish-blue colored fuel, which tested negative for water contamination.

The pilot's seat floor mounts were separated from the fuselage. The pilot's restraint was a 3point military style lap belt and shoulder harness and was found secured at each anchor. The lap belt was positioned around the pilot and each of the tongues was secured by the one-stroke release buckle. The shoulder harness stitching near the roof anchor had pulled loose and the webbing was very worn and faded.

The propeller remained attached to the crankshaft flange. The first blade sustained damage to

the leading edge and the tip was fractured off, and it exhibited chordwise scoring, rearward bending, and blade curling. The second blade exhibited leading edge gouges slight forward bending, and the tip was fractured off. Examination of the engine did not reveal any preimpact mechanical malfunctions or failures that would have precluded normal operation. A review of the data from the airplane's J.P. Instruments EDM700 engine monitor revealed no anomalous indications.

A postaccident weight and balance calculation, not including fuel, revealed that the payload was about 535 lbs. The airplane's useful load was 559 lbs. The amount of fuel onboard the airplane at the time of the accident has not been determined.

Aircraft Make:	Piper	Registration:	N3937M
Model/Series:	PA-12	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			
Meteorological Informa	tion and Flight Plan		
Conditions at Accident Site:	VMC	Condition of Light:	Day
Observation Facility, Elevation	n: 3100 ft msl	Observation Time:	
Distance from Accident Site:		Temperature/Dew Point	:
Lowest Cloud Condition:		Wind Speed/Gusts, Direc	ction: 20 knots / 30 knots,
Lowest Ceiling:		Visibility:	
Altimeter Setting:		Type of Flight Plan Filed	l: None
Departure Point:	Marsh Strip, AK	Destination:	
Wreckage and Impact I	nformation		
Crew Injuries:	1 Fatal	Aircraft Damage: Sul	bstantial
Passenger Injuries:		Aircraft Fire: No	ne
Ground Injuries:	N/A	Aircraft Explosion: No	ne
Total Injuries:	1 Fatal	Latitude, 68. Longitude:	.720123,-146.23407

Aircraft and Owner/Operator Information

ANC22FA066

Administrative Information

Investigator In Charge (IIC):	Lindberg, Joshua
Additional Participating Persons:	Dustin Hopkins; Federal Aviation Administration; Fairbanks, AK Mark Platt; Lycoming Engines; Williamsport, PA
Note:	

ANC22FA066



Location:	Metz, WV	Accident Number:	ERA22FA368
Date & Time:	August 11, 2022, 18:05 Local	Registration:	N720RP
Aircraft:	Piper PA32	Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On August 11, 2022, about 1805 eastern daylight time, a Piper PA32, N720RP, was destroyed when it was involved in an accident near Metz, West Virginia. The private pilot and two passengers were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot's employer, the pilot and the passengers were congregants of the same church, and the flight was a planned day trip to conduct church business in Indiana. The accident occurred on the return flight. Preliminary Automatic Dependent Surveillance - Broadcast (ADS-B) data revealed that the airplane departed Deck Airport (9D4), Myerstown, Pennsylvania, about 0735 and landed at Daviess County Airport (DCY), Washington, Indiana. The airplane subsequently departed DCY at 1543.

The data showed the airplane in a cruise profile on an approximate 070° track about 9,500 ft mean sea level (msl). Weather radar imagery superimposed over the airplane's flight track indicated that the airplane was flying approximately parallel to and south of a band of light/moderate to extreme precipitation that extended across Ohio, West Virginia, and Pennsylvania. Preliminary air traffic control communication information revealed that, at 1752:06, the pilot contacted the Cleveland Air Route Traffic Control Center controller and stated, "I'm looking at my NEXRAD here and I'm thinking about doing like 30 degrees left right now to get over the top side of this stuff, what does it look [like] at your end?" The controller replied, "I'm showing some slight gaps in that, but the whole line off your left-hand side is moderate to heavy with pockets of extreme. So, there may be some slight gaps. I'm just not real sure if they are in fact gaps from your point of view. But whatever you think looks good. Just let me know if you need anything." The pilot replied, "I appreciate the help."

At 1801:09, the pilot announced to the controller, "We're going to deviate about 20 [degrees] left and see if we can [unintelligible] of this thing." The controller responded, "Roger. I'm showing the more extreme heavy precipitation just off your left wing there and with the small gap at your 12 o'clock and 5 miles." At 1801:31, the pilot replied, "Yep, that's what we're looking for." There were no further communications from the airplane. At the time of the airplane's

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final transmission, the ground track had changed to about 050°, and the airplane had entered an area of light precipitation. The airplane continued the same track about 9,500 ft msl, and over the next 6 miles, transitioned through light, moderate, heavy, and into an area of extreme precipitation. About 1803, the track data depicted a steep, descending, right turn that continued until data was lost.

The pilot held a private pilot certificate with a rating for airplane single-engine land. He did not possess an instrument rating. The pilot completed the requirements for operation under BasicMed on May 11, 2021. Examination of the pilot's logbook revealed that the pilot began flying in 2005, and had accrued 387 total hours of flight experience, of which 232 hours were in the accident airplane make and model.

According to Federal Aviation Administration (FAA) records, the airplane was manufactured in 1980 and was powered by a Lycoming IO-540-K1G5 300-horsepower engine. According to the pilot's employer, the airplane's most recent annual inspection was completed August 10, 2022.

Local emergency services personnel located the airplane's fuselage in hilly, wooded terrain about one hour after the accident. The fuselage came to rest inverted with the engine and propeller still attached. The fuselage was crushed uniformly on its right side along its entire length. The wings and the tail section, which included the horizontal stabilizer, elevator, vertical stabilizer, and rudder, were separated from the fuselage and located by emergency personnel and search and rescue volunteers over the following days.

The fuselage came to rest in the immediate vicinity of the final flight track data, and the wreckage was distributed generally south of the fuselage over about 0.8 miles. The left wing was about 100 yards to the west of the fuselage, and the right wing was about 400 yards southwest. Both wings were separated at their respective roots. The fracture surfaces displayed at each wing and their corresponding wing root at the fuselage were consistent with overstress fracture. Several pieces of aircraft sheet metal were found along the wreckage path, with pieces associated with the tail section the furthest away.

Flight control continuity was confirmed from the cockpit through several breaks and cuts consistent with recovery operations, to the flight control surfaces recovered in the debris field. An engine data monitor was removed from the instrument panel and retained for further examination.

The right side of the engine was impact damaged. The right rocker box covers (Nos. 1, 3, and 5) were molded around the rocker arms by impact, preventing movement. Once the valve covers were removed, the engine was rotated by hand at the propeller and compression was confirmed on all cylinders using the thumb method. The Nos. 1, 3, and 5 cylinders displayed cracks to the rocker box flange surface or the area between the valves within the cylinder head due to impact. The cooling fins were also damaged on these cylinders.

The right magneto was impact separated from the engine accessory case but produced spark at all leads when rotated using an electric drill. The left magneto, which was electronic, could not be tested for spark, but remained securely mounted to the accessory case.

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All spark plugs were found installed to their respective cylinders. The plugs were removed and no damage was observed to any of the electrodes.

The vacuum pump remained attached to the accessory case. The pump was removed and disassembled; the rotor and vanes were intact, and the pump spun freely.

The propeller governor was attached to the engine securely and removed for examination. The screen was present and free and clear of any debris. The governor drive spun freely by hand and oil exited the unit during hand operation.

The oil filter was removed, cut open, and inspected. The filter element contained no debris and was unremarkable, the date written on the oil filter was 8/10/22.

The fuel servo was found secure to the engine with both the throttle and mixture cables attached. The servo was removed and disassembled. The inlet screen was free and clear of debris. Both diaphragms were unremarkable. The fuel manifold was securely attached to the top of the engine with no damage noted. The diaphragm was unremarkable. All 6 injector nozzles were removed and were unobstructed.

Aircraft Make:	Piper	Registration:	N720RP
Model/Series:	PA32 301	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:			
Meteorological Information and Flight Plan			
Conditions at Accident Site:	IMC	Condition of Light:	Day
Conditions at Accident Site: Observation Facility, Elevation	IMC : KMGW,1253 ft msl	Condition of Light: Observation Time:	Day 17:53 Local
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site:	IMC : KMGW,1253 ft msl 21 Nautical Miles	Condition of Light: Observation Time: Temperature/Dew Point:	Day 17:53 Local 23°C /18°C
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site: Lowest Cloud Condition:	IMC : KMGW,1253 ft msl 21 Nautical Miles	Condition of Light: Observation Time: Temperature/Dew Point: Wind Speed/Gusts, Direction	Day 17:53 Local 23°C /18°C 9 knots / 21 knots, 20°
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site: Lowest Cloud Condition: Lowest Ceiling:	IMC KMGW,1253 ft msl 21 Nautical Miles Broken / 3300 ft AGL	 Condition of Light: Observation Time: Temperature/Dew Point: Wind Speed/Gusts, Direction Visibility: 	Day 17:53 Local 23°C /18°C 9 knots / 21 knots, 20° 6 miles
Conditions at Accident Site: Observation Facility, Elevation Distance from Accident Site: Lowest Cloud Condition: Lowest Ceiling: Altimeter Setting:	IMC KMGW,1253 ft msl 21 Nautical Miles Broken / 3300 ft AGL 30.03 inches Hg	 Condition of Light: Observation Time: Temperature/Dew Point: Wind Speed/Gusts, Direction Visibility: Type of Flight Plan Filed: 	Day 17:53 Local 23°C /18°C 9 knots / 21 knots, 20° 6 miles None

Aircraft and Owner/Operator Information

ERA22FA368

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	39.62414,-80.38504 (est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	Jeffrey Burch; FAA FSDO; Charleston, WV Jon Hirsch; Piper; Vero Beach, FL Dave Harsanyi; Lycoming Engines; Williamsport, PA
Note:	



Location:	Afton, VA	Accident Number:	ERA22FA418
Date & Time:	September 14, 2022, 23:00 Local	Registration:	N2104J
Aircraft:	Piper PA32	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On September 14, 2022, about 2300 eastern daylight time, a Piper PA-32-300, N2104J, was destroyed when it was involved in an accident near Afton, Virginia. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the airport manager at Blue Ridge Airport (MTV), Martinsburg, Virginia, the pilot diverted to MTV uneventfully on September 10, 2022, due to weather. He purchased 72 gallons of fuel and return to Pennsylvania on a commercial flight. On the day of the accident, the pilot arrived at MTV to retrieve his airplane with the intention of flying back to his home airport, Smoketown Airport (S37), Smoketown, Pennsylvania.

According to preliminary information from the Federal Aviation Administration, the airplane was in cruise flight at 7,500 ft mean sea level when the pilot reported a rough running engine, followed by a total loss of engine power. The pilot attempted to glide the airplane to Charlottesville-Albermarle (CHO), Charlottesville, Virginia, but the airplane impacted wooded terrain about 15 miles southwest of CHO.

An approximate 100-ft debris path was observed, extending on a 60° magnetic course, consisting of severed trees at a downward angle of approximately 45°. The wreckage came to rest upright, oriented on a magnetic heading of 240°. The cockpit and cabin were consumed by fire. The fuel selector valve exhibited thermal damage and was positioned to the left main fuel tank. The fuel strainer bowl was thermally damaged, and the fuel strainer screen was destroyed. Flight control cable continuity was continuous from the cockpit to each of the respective control surfaces except for a separation in each of the rudder cables consistent with impact forces. The propeller remained attached to the crankshaft propeller flange. Both propeller blades remained in the hub. One blade appeared straight and undamaged. The other blade was bent aft about 90°. The spinner was crushed on one side.

The engine was subsequently examined at a recovery facility. The crankshaft could not be rotated by hand. Removal of the rear accessory case housing revealed fragments of connecting rod cap on top of

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ERA22FA418

This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

the oil sump baffling. Removal of the oil sump revealed about 1 quart of oil remained in the sump with additional metal fragments. The Nos. 1 and 2 cylinders were removed and their respective connecting rods remained intact. The remaining four cylinders could not be removed from the engine case. An access hole was cut through the oil sump baffling to facilitate visual examination. The remaining four connecting rods were fractured. The visual examination revealed that the crankshaft remained intact. The engine was retained for further examination.

Aircraft Make:	Piper	Registration:	N2104J	
Model/Series:	PA32 300	Aircraft Category:	Airplane	
Amateur Built:				
Operator:		Operating Certificate(s) Held:	None	
Operator Designator Code:				
Meteorological Information and Flight Plan				
Conditions at Accident Site:	VMC	Condition of Light:	Night	
Observation Facility, Elevation	: CHO,641 ft msl	Observation Time:	22:53 Local	
Distance from Accident Site:	15 Nautical Miles	Temperature/Dew Poir	nt: 18°C /15°C	
Lowest Cloud Condition:	Clear	Wind Speed/Gusts, Dire	ection: 4 knots / , 270°	
Lowest Ceiling:	None	Visibility:	10 miles	
Altimeter Setting:	30.15 inches Hg	Type of Flight Plan Filed: None		
Departure Point:	Martinsville, VA (MTV)	Destination:	Smoketown, PA (S39)	
Wreckage and Impact Information				
Crew Injuries:	1 Fatal	Aircraft Damage: D	Destroyed	
Passenger Injuries:	N/A	Aircraft Fire: 0	On-ground	
Ground Injuries:	N/A	Aircraft Explosion: N	None	
Total Injuries:	1 Fatal	Latitude, 3 Longitude:	7.985075,-78.716803	
Administrative Information				

Aircraft and Owner/Operator Information

Investigator In Charge (IIC):

Note:

Additional Participating Persons:

Page 2 of 3 ERA22FA418 This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed.

Peter Hantelman; FAA/FSDO; Richmond, VA Jonathan Hirsch; Piper Aircraft; Vero Beach, FL David Harsanyi; Lycoming Engines; Williamsport, PA

Gretz, Robert

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