

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA18LA034	11/29/2017 930 EST	Regis# N690RU	Westminister, MD	Apt: Clearview Airpark 2W2
Acft Mk/Mdl AERO COMMANDER 112-UNDESIGNAT	Acft SN 33	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-360	Acft TT 3692	Fatal 1	Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: SHELTON STEVEN	Opr dba:	Aircraft Fire: NONE	AW Cert: STN	

## Events

1. Landing - Landing area undershoot

## Narrative

On November 29, 2017, about 0930 eastern standard time, an Aero Commander 112, N3187V, owned and operated by the student pilot, was substantially damaged during a precautionary landing at Clearview Airpark (2W2), Westminister, Maryland. The student pilot was not injured. The solo instructional flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no flight plan was filed for the flight that originated from Martin State Airport (MTN), Baltimore, Maryland, about 0900. The flight was destined to Eastern WV Regional Airport (MRB), Martinsburg, West Virginia.

The student pilot reported that 2W2 was his second checkpoint during the cross-country flight. Upon reaching 2W2, the airplane experienced an electrical failure that affected the communication radios and GPS. The student pilot then elected to divert to 2W2 and entered the airport traffic pattern for runway 32, a 1,840-foot long, 30-foot wide asphalt runway. While completing landing procedures, the student pilot extended the landing gear, but did not observe the corresponding green indicator lights in the cockpit. He could not be certain if he did not see the lights due to the electrical failure or because of sun glare. While on the left base leg of the traffic pattern, the student pilot lowered the nose of the airplane to cease the stall warning horn and the airplane flew beyond the extended runway centerline; however, the student pilot corrected and aligned the airplane on final approach. While on short final approach, the airplane descended suddenly and the student pilot immediately compensated by increasing engine power, but the landing gear contacted a grass area before runway and all three landing gear separated. The airplane came to rest upright just prior to the runway.

Examination of the wreckage by a Federal Aviation Administration inspector revealed substantial damage to the fuselage. When the inspector tested the airplane's electrical system, it functioned, but the avionics panel extinguished after approximately 10 seconds of operation.

The recorded wind at an airport located about 10 miles north of the accident site, at 0925, was from 230° at 6 knots. The student pilot reported that the wind at 2W2 was from 140° at 8 knots, gusting to 12 knots, at the time of the accident.

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN16FA130	03/20/2016 1110	Regis# N84580	Ellsworth, NE	Apt: N/a
Acft Mk/Mdl AERONCA 7AC		Acft SN 7AC-3289	Acft Dmg: DESTROYED	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-235-C1		Acft TT 1855	Fatal 1 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: ANDRICK BEN		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

## Events

1. Maneuvering - Loss of control in flight

## Narrative

### HISTORY OF FLIGHT

On March 20, 2016, about 1110 mountain daylight time, an Aeronca 7AC airplane, N84580, impacted terrain near Ellsworth, Nebraska. The private pilot sustained fatal injuries, and the airplane was destroyed. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations (CFR) Part 91 as a personal flight. Day visual meteorological conditions prevailed for the local flight, which departed without a flight plan from Alliance Municipal Airport (AIA), Alliance, Nebraska.

At 1000, an airport surveillance camera captured the airplane departing from AIA. About 1100, the pilot's brother observed the airplane maneuvering near his home, which was in a rural area about 31 miles northeast of AIA. After concerned family members reported the pilot missing, the accident site was subsequently located on March 22, 2016, about 4 miles southwest of the pilot's brother's home.

### PERSONNEL INFORMATION

The pilot, age 68, held a private pilot certificate with an airplane single-engine land rating. The pilot was last issued a Federal Aviation Administration (FAA) third-class medical certificate on July 7, 2005. The pilot held a valid driver's license.

The Aeronca 7AC is defined by the FAA as a light sport aircraft (LSA). Pilots flying LSAs are only required to possess a valid driver's license and comply with 14 CFR 61.53(b), which states that no person may act "as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner."

A review of the pilot's logbook showed that the pilot had accumulated 355 flight hours of which 3 flight hours were in the last 30 days. The pilot's most recent flight review was completed on February 22, 2016.

### AIRCRAFT INFORMATION

The airplane, serial number 7AC-3289, was manufactured in 1946 and registered to the pilot on September 10, 2013. It was a two-place, tandem, high-wing monoplane equipped with a Lycoming O-235-C1 engine, rated at 115 horsepower at 2,600 rpm.

Review of the maintenance records showed that the most recent annual inspection was completed on July 25, 2015, at a total time of 1,848.2 hours. At the time of the accident, the airplane had accumulated 7 hours since the annual inspection. Although the airplane held a standard airworthiness certificate, it met the definition of an LSA as contained in 14 CFR Part 1.1.

The mechanic who performed the last annual inspection stated that he and the pilot became aware of an engine exhaust muffler crack in September 2015. The crack was located near a weld that the pilot had performed. The pilot had intended to replace the muffler; a new muffler was in the pilot's hangar when the accident occurred.

### WEATHER INFORMATION

At 1053, the weather observation station at AIA, located about 27 miles southwest of the accident site, reported the following conditions: wind variable at 6 knots, 10 miles visibility, clear skies, temperature 60C, dew point minus 120C, and an altimeter setting of 30.23 inches of mercury.

## WRECKAGE AND IMPACT INFORMATION

The aircraft impacted rolling terrain on a southeasterly heading. The main wreckage came to rest upright on a northerly heading, about 340 ft from the initial impact point. The left and right wings separated from the fuselage with the front and rear wood spars of both wings fractured near the wing roots. Both spars of the right wing were also fractured near the wing tip. The right wing was about 210 ft northwest of the main wreckage, and the left wing was about 5 ft to the right of the main wreckage. The propeller separated from the engine and came to rest about 180 ft northwest of the main wreckage.

The flight control surfaces remained attached to their respective airframe surfaces. The elevator, rudder, and elevator trim tab cables had normal continuity with their respective cockpit controls. The aileron flight control cable was fractured in four locations. The fractures had a broomstraw appearance consistent with overload. Both aileron bellcrank connecting rods were fractured adjacent to the bellcranks, and the fracture surfaces were consistent with overload. No preimpact anomalies were noted with the flight control system.

The engine remained attached to the airframe. The top Champion REM40E spark plugs were removed from the cylinders. All displayed a normal worn condition when compared to the Champion Aviation Service Manual (AV-27). A borescope inspection of the four cylinders was conducted, which revealed no anomalies with the pistons, cylinder barrels, cylinder heads, valves or valve seats. Both magnetos were rotated by hand and produced spark at all leads. The carburetor float bowl was removed with no anomalies noted.

Both propeller blades were significantly twisted and curled aft with chord-wise polishing. The engine and propeller exhibited damage consistent with operation at impact. The cabin heat control was in the "off" position. The left muffler shroud was removed, and the muffler was found rusted and cracked in several locations. The muffler shroud contained a layer of exhaust residue. A carbon monoxide detector was not located in the wreckage.

## MEDICAL AND PATHOLOGICAL INFORMATION

The pilot had reported no chronic medical conditions and no medications during his last FAA medical exam in 2005. However, according to his personal medical records, he had been treated for prostate cancer in 2000 and had intermittently been treated for hypertension. In 2009 and 2011, he underwent a series of interventions (angioplasty and stenting) for severe coronary artery disease. Since 2013, he had been treated for stress, insomnia, and anxiety with two anti-anxiety medications, temazepam and buspirone; both of these drugs carry warnings about behavior changes. In 2011, he had been diagnosed with obstructive sleep apnea and instructed to use a continuous positive airway pressure machine. A physician's review in 2016 revealed that he was not using his machine to the desired extent (at least 4 hours/night).

As of February 18, 2016, the pilot was taking the following medications that are not generally considered impairing:

- aspirin (an antiplatelet drug to decrease the risk of recurrent heart attack),
- finasteride and tamsulosin to treat symptoms from his prostate gland (known also as Proscar and Flomax, respectively),
- simvastatin (a cholesterol lowering drug also known as Zocor),
- metoprolol (a blood pressure medication that also decreases the risk of recurrent heart attacks), and
- clopidogrel (an antiplatelet drug used to prevent clots in coronary stents, also known as Plavix).

As previously mentioned, the pilot was also taking the potentially impairing anti-anxiety medications buspirone and temazepam. Finally, the pilot used nitroglycerin as needed for chest pain.

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

According to the autopsy performed by the Regional West Medical Center, Western Pathology Consultants, P.C., Pathology Department in Scottsbluff, Nebraska, the pilot's cause of death was blunt force trauma, and the manner of death was accident. The autopsy also identified coronary artery disease with a 50% stenosis in the proximal left anterior descending artery.

Toxicology testing performed by the FAA's Bioaeronautical Sciences Research Laboratory identified carbon monoxide (carboxyhemoglobin) at 40% in subclavian blood. In addition, metoprolol, buspirone, and temazepam (0.123 ug/ml) were identified in subclavian blood. These drugs and clopidogrel, diazepam, oxazepam, and ranitidine (a heartburn medication) were identified in urine. The finding of diazepam and oxazepam only in urine and not in blood was consistent with their presence as metabolites of temazepam.

Carbon monoxide is an odorless, tasteless, colorless, nonirritating gas formed by hydrocarbon combustion. Carbon monoxide binds to hemoglobin with much greater affinity than oxygen, forming carboxyhemoglobin; elevated levels result in impaired oxygen transport and utilization. Nonsmokers may normally have up to 3% carboxyhemoglobin in their blood; heavy smokers may have levels of 10% to 15%. The pilot was not a smoker.

Carboxyhemoglobin levels between 10% and 20% can result in confusion, impaired judgment, and difficulty concentrating. The primary effects of acute carbon monoxide poisoning are on the brain and heart and include headache, arrhythmias, confusion, coma, and death.

## ADDITIONAL INFORMATION

FAA Advisory Circular 91-59A, Inspection and Care of General Aviation Exhaust Systems, emphasizes the safety hazards of poorly maintained exhaust systems and highlights points at which exhaust system failures occur.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA18CA018	10/22/2017 1330 PDT	Regis# N83512	Salinas, CA	Apt: Salinas Muni SNS
Acft Mk/Mdl AERONCA 7DC		Acft SN 7AC-2183	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL C85-F		Acft TT 1998	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: JACK H. NOE TRUSTEE		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing - Loss of control on ground
- 

## Narrative

The pilot reported that, during landing, as the tailwheel was touching down the airplane swerved to the right and hit a taxiway sign. Subsequently, the left main landing gear collapsed and the left wing struck the ground.

The airplane sustained substantial damage to the fuselage and left wing.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The automated weather observation system on the accident airport reported, about 30 minutes prior to the accident that the wind was calm. The automated report further reported, about 30 minutes after the accident, the wind was from 270ø at 11 knots. The pilot landed on runway 08.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA18CA022	10/22/2017 929 EDT	Regis# N337AM	Williamsport, PA	Apt: Williamsport Rgnl IPT
Acft Mk/Mdl AVIAT AIRCRAFT INC A1-B		Acft SN 2337	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360-A1P		Acft TT 1295	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: WILLIAM H. BRINE		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing - Abnormal runway contact
- 

## Narrative

The pilot of the tundra tire, tailwheel-equipped airplane reported that, during the landing touchdown, he discovered that the left emergency brake was partially engaged. He added that, the left wheel was locked and the airplane exited the left side of the runway. Subsequently, the right landing gear collapsed and the right wingtip struck the ground.

He added that, before the previous takeoff, from a grass airstrip, he had performed his preflight checklist, which was normal. But, "upon reflection", he realized that he had changed his normal routine by shutting down the engine, setting the parking brakes and exiting the airplane after completing the checklist. After re-entering the airplane, he only did a "visual left to right flow check". He then, pressed and released the brakes and applied power holding the left rudder and brake down to turn the airplane in the direction of the departure, and departed after a "very short ground roll downhill".

He further added, that by taking an immediate turn to the left, during the takeoff roll, he "may not have released enough pressure on the parking brake to turn it completely off." He believed that, due to the combination of the large smooth tire, wet grass and downslope hill he was unable to determine that the emergency parking brake was engaged.

The airplane sustained substantial damage to the fuselage and right wing.

The pilot did report that the left parking brake did not disengage.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# ERA17LA347	09/16/2017 855 EDT	Regis# N3187V	Marathon, FL	Apt: N/a
Acft Mk/Mdl BEECH 35-A		Acft SN D-623	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL E-185-8		Acft TT 3768	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: VICTOR DIPILATO		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Enroute-climb to cruise - Fuel exhaustion
- 

## Narrative

On September 16, 2017, about 0855 eastern daylight time, a Beech 35, N3187V, operated by the private pilot, was substantially damaged while ditching in the Gulf of Mexico, following a total loss of engine power about 10 miles west of Marathon, Florida. The private pilot and passenger were not injured. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no flight plan was filed for the flight that originated from Fort Lauderdale Executive Airport (FXE), Fort Lauderdale, Florida, about 0745.

The pilot reported that he and a business partner planned to survey damage to his business partner's home on No Name Key, Florida. They flew to the home, circled it at a lower altitude, took photographs, and began a climb back to cruise altitude for the return to FXE. About 800 to 1,000 feet above mean sea level, the engine lost all power. The pilot prepared to ditch as the airplane would not glide far enough to reach land. He also attempted two engine restarts with no success, and reported the emergency to air traffic control. The pilot attempted two more engine restarts using the wobble fuel pump and electric fuel pump. He then attempted another restart using the electric fuel pump with no success. The pilot landed on the water with the landing gear and flaps retracted. The airplane came to rest upright and both occupants were rescued by law enforcement.

According to the president of a recovery company, the airplane was recovered 12 days later, on September 28, 2017. The airplane appeared to be intact and was resting on a sandy bottom. Following recovery, no fuel or water was noted in the left wing fuel tank and approximately 1 gallon of a fuel and water mixture was recovered from the right wing fuel tank.

Initial examination of the wreckage revealed that the fuselage was buckled during the ditching. The wreckage was retained for further examination.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# CEN17LA058	12/18/2016 1500 CST	Regis# N4204B	Blaine, MN	Apt: N/a
Acft Mk/Mdl BELLANCA 17 30A		Acft SN 75-30753	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO 520 SERIES		Acft TT 2955	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BEL VIK LLC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Enroute-cruise - Loss of engine power (total)

## Narrative

On December 18, 2016, about 1500 central standard time, a Bellanca 17-30A airplane, N4204B, was substantially damaged during a forced landing near Blaine, Minnesota. The pilot was not injured. The airplane was registered to and operated by Bel Vik LLC under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Day visual meteorological conditions prevailed for the flight, which departed about 1420 from Range Regional Airport (HIB), Hibbing, Minnesota, and was destined for Flying Cloud Airport (FCM), Minneapolis, Minnesota.

The pilot stated the airplane was launched from a heated hangar at FCM. After landing at HIB, two passengers were deplaned. The airplane remained on the ground at HIB about 15 minutes, with no fuel added. During departure from HIB, the temperature was minus 6 degrees F.

While in cruise flight at 2,500 ft msl, at an estimated temperature of minus 10 degrees F, the engine lost power. After the pilot switched fuel tanks and turned on the fuel boost pump, engine power was restored. Due to uncertainty with fuel status, the pilot diverted towards Anoka County-Blaine Airport (ANE), Blaine, Minnesota. Approaching ANE, the engine began to knock and subsequently seized. The pilot executed a forced landing onto a road, during which the airplane's left wing impacted a sign.

Examination of the engine at the accident site revealed the top portion of the right and left crankcases were broken, with crankcase material missing and damaged internal engine components visible, including a fractured connecting rod cap. The engine breather tube was frozen over, with no alternate breather hole present. The propeller shaft seal was partially protruded. The engine, which has a normal oil capacity of 12 quarts, contained about 5 quarts of oil. Most of the oil loss occurred through the holes in the crankcase, with some oil loss through propeller shaft seal.

The engine was shipped to the Continental Motors facility at Mobile, Alabama. Examination revealed all rocker arms and shafts were undamaged and all valves were intact, with normal combustion signatures. The induction components, ignition components, and fuel pump were not damaged. The fuel pump was bench tested and performed within specifications.

Internal engine damage did not allow for rotation of the crankshaft. Following split of the crankcase, the Nos. 3 and 4 cylinder skirts were found to be mechanically damaged by internal components, with the Nos. 3 and 4 pistons wedged in their respective cylinders. Both crankcase halves were internally damaged by rotating components. The Nos. 3 and 4 connecting rods were damaged, with their respective rod caps separated. The remaining four connecting rods were not damaged. The Nos. 1, 2, 5, and 6 connecting rod bearings exhibited overlay fatigue, dirt embedment and corrosion. The No. 3 and 4 connecting rod bearings displayed significant heat distress and severe damage.

The crankshaft's No. 4 connecting-rod journal was severely damaged due to heat distress. The oil galleys and transfer tubes were examined with additional lighting, which revealed that no blockages were present. Each of the five main bearings were intact, with an insignificant amount of contamination. The transfer collar exhibited normal operation patterns.

The oil cooler was not damaged and the oil system vernitherm (thermostat) was removed and tested, with normal results. The oil pressure relief valve had evidence of an unapproved sealant on the oil pressure relief valve body. The engine was equipped with a reusable oil screen, versus a spin-on full flow oil filter. The reusable oil screen contained ferrous and non-ferrous metal contaminants.

The recommended oil change interval for an engine with a reusable oil screen was every 25 hours or 4 months, according to Continental Motors Standard Practices Publications. A review of logbooks prior to 2011 revealed a history of erratic oil changes, including intervals of 45, 48, 66, 80, and 84 hours.

The airplane was involved in a hard landing in 2011 and was not flown for about 5 years. After purchase by the current owner, an annual was performed on February 1, 2016, and an oil change occurred on August 8, 2016. Phillips 20-50WC oil, which has a pour point of minus 27 F, was utilized for both the annual



and subsequent oil change.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA17CA306	05/21/2017 945 EDT	Regis# N60579	Zepp, VA	Apt: N/a
Acft Mk/Mdl CESSNA 150-J		Acft SN 15070419	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR O-200		Acft TT 3972	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: CARL BIVENS		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Enroute - Loss of engine power (partial)

## Narrative

The flight instructor reported that, during a long cross-country flight, they encountered deteriorating weather conditions, and in order to remain VFR, altered course and destination. En route, while approaching a ridge line, he "noticed that [the airplane's] airspeed started to drop toward 65 miles an hour". He added that "[he] thought that maybe [they] were picking up carburetor ice and [he] reached for the carburetor heat and pulled it out".

The student pilot reported that after the flight instructor stated, "watch your airspeed", he looked at the Revolutions Per Minute (RPM) gauge and noted that it was indicating 1800-1900 RPM. He added that, the flight instructor took over the flight controls and the airplane impacted the top of the ridge.

A review of multiple weather observation stations, located around the four corners of the accident site, revealed similar conditions, temperature 55øF, and dew point 43øF. Review of the Federal Aviation Administration Carburetor Icing Chart for the given temperature and dew point revealed that the conditions were conducive to "serious icing at cruise power". (For more information see Special Airworthiness Information Bulletin CE-09-35 in the public docket.)

The airplane sustained substantial damage to the right wing.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA17CA426	07/11/2017 1225 PDT	Regis# N2714D	Friday Harbor, WA	Apt: Friday Harbor FHR
Acft Mk/Mdl CESSNA 170-B		Acft SN 25256	Acft Dmg: UNK	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR C145 SERIES		Acft TT 3405	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: THOMPSON RICHARD L		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing-flare/touchdown - Loss of control on ground
- 

## Narrative

The pilot in the tailwheel equipped airplane reported that following a personal flight he made a three-point landing on runway 16.

He recalled that during the landing flare, the airplane encountered a wind gust, and following touch down the airplane exited the left side of the runway and ground looped to the left. The airplane slid down an embankment and the right wing struck the ground.

The airplane sustained substantial damage to the right-wing spar and aileron.

The METAR at the airport, reported that the wind was from 180ø at 5 knots, with 10 statute miles visibility and clear skies.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# CEN18LA044	11/08/2017 1630 CST	Regis# N2766D	Harvard, IL	Apt: Dacy Airport 0C0
Acft Mk/Mdl CESSNA 170B		Acft SN 25308	Acft Dmg: NONE	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR C145 SERIES			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: CHADD HARTWIG		Opr dba:		Aircraft Fire: NONE

---

## Events

1. Landing-flare/touchdown - Flight control sys malf/fail
- 

## Narrative

On November 8, 2017, about 1630 central standard time, a Cessna 170B airplane, N2766D, experienced a flight control failure while landing at Dacy Airport (0C0), Harvard, Illinois. The pilot was not injured. The airplane was not damaged. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no Federal Aviation Administration (FAA) flight plan had been filed for the flight. The flight departed Poplar Grove Airport (C77), Poplar Grove, Illinois, about 1615 and was en route to 0C0.

According to the pilot, during the landing flare to runway 27 (3,589 ft. by 105 ft., turf), about 6 to 12 inches off of the runway, the flight controls failed and the nose of the airplane dropped. The pilot was able to reach over to the copilot control yoke and completed the landing without further incident. The airplane was not damaged during the landing.

An examination of the airplane revealed that the pin in the universal joint for the pilot-side control tee (flight control yoke) had failed. The part has been retained for further examination and testing by the National Transportation Safety Board Materials Laboratory in Washington, D.C.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA18CA024	10/17/2017 1230 EDT	Regis# N6384D	Old Bridge, NJ	Apt: Old Bridge 3N6
Acft Mk/Mdl CESSNA 172-N		Acft SN 17272770	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320 SERIES			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MICHAEL CIURARU		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing - Loss of control on ground
- 

## Narrative

The student pilot reported that, during the landing roll, the airplane "slid" to the left off the runway. He added that he attempted to correct, but the airplane impacted trees.

The airplane sustained substantial damage to the fuselage and right wing.

The student pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA17CA327	06/06/2017 1615	Regis# N741TW	Tooele, UT	Apt: Bolinder Field-tooele Valley TVY
Acft Mk/Mdl CESSNA 172-S		Acft SN 172S10117	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-360-L2A		Acft TT 3471	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: UPPER LIMIT AVIATION		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Approach-VFR go-around - Aerodynamic stall/spin

---

## Narrative

The solo student pilot reported that, during landing, the airplane "ballooned up and [he] added a little throttle [to] settle the [airplane]". He added that, "the [airplane] seemed to settle but felt like it was coming down too fast". He applied full power to go around and reduced the flaps to 20°. He added that, "the [airplane] was stalling and so [he] moved the flaps to 0 degrees, which caused the plane to continue to stall". Subsequently, the airplane impacted the ground.

The airplane sustained substantial damage to the wings and empennage.

The student pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# WPR18LA034	11/19/2017 1500 PST	Regis# N52492	San Jose, CA	Apt: Reid-hillview Of Santa Clara C RHV
Acft Mk/Mdl CESSNA 172P-P		Acft SN 17274540	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320 SERIES		Acft TT 14748	Fatal 0 Ser Inj 2	Flt Conducted Under: FAR 091
Opr Name: MCCLELLAND AVIATION INC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Initial climb - Miscellaneous/other

## Narrative

On November 19, 2017, about 1500 Pacific standard time, a Cessna 172P airplane, N52492, was substantially damaged when it impacted a residence following a partial loss of engine power in San Jose, California. The private pilot received minor injuries and the passengers were seriously injured. The airplane was operated by Squadron 2 as a personal flight, conducted under the provision of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and a flight plan was not filed for the local flight, which had departed Reid Hillview Airport (RHV), San Jose, California shortly before the accident.

According to the pilot, she completed a preflight inspection and taxied to runway 31R for an engine run-up, which did not reveal any anomalies. The takeoff roll was normal and the airplane lifted off the ground at approximately 55 knots. As the airplane reached an indicated altitude of about 50 feet, the pilot observed the vertical speed and rpm decrease simultaneously, while the engine began to run rough. Once the airplane was beyond the airport perimeter, the pilot started a shallow left turn, while simultaneously searching for a landing site as she had difficulty maintaining altitude. She continued the turn until she observed a grass field in front of her as the airplane was descending. Moments before impact she decreased the airplane's pitch attitude, but the airplane continued to descend until it impacted a residence.

A surveillance camera captured a portion of the airplane's initial climb and its subsequent descent. The recording showed the airplane maintain a low altitude and enter a shallow left turn and slight nose high attitude shortly after its departure from the runway. Seconds later, the airplane's bank angle increased in the turn as the airplane descended. In its final movements, the airplane's pitch attitude decreased and the airplane's wings leveled out and then the airplane disappeared behind trees.

A postaccident examination of the airplane by the Federal Aviation Administration revealed substantial damage to the wings, empennage and fuselage.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# ANC18LA009	11/15/2017	2007 EST	Regis# N6102R	Opa Locka, FL	Apt: Miami-opa Locka Executive OPF
Acft Mk/Mdl CESSNA 172RG-NO SERIES			Acft SN 172RG0084	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING O&VO-360 SER				Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: SOUTH FLORIDA AVIATION GROUP LLC		Opr dba:			Aircraft Fire: NONE
					AW Cert: STN

---

## Events

1. Approach-IFR final approach - Electrical system malf/failure

## Narrative

On November 15, 2017, about 2007 eastern standard time, a Cessna 172RG retractable landing gear airplane, N6102R, sustained substantial damage during landing at Miami-Opa Locka Executive Airport (KOPF), Miami, Florida. The airplane was registered to South Florida Aviation Group, LLC and operated by the pilot as a visual flight rules flight under the provisions of 14 Code of Federal Regulations Part 91 when the accident occurred. The certificated commercial pilot and safety pilot were not injured. Visual meteorological conditions prevailed, no flight plan had been filed.

The pilot reported that the purpose of the flight was to practice instrument approaches for an upcoming certified flight instructor instrument (CFII) check ride. Just prior to intercepting the glideslope for the ILS 9L approach into KOPF she moved the landing gear selector to the down position, verified that the gear down and locked light was illuminated, set the flaps to 20 degrees, and completed the before landing checklist. About 500 feet above ground level (AGL), the GPS blinked, and radio communications were lost. The safety pilot set the transponder to squawk 7600, and switched to the number two radio, but was unable to reestablish radio communications with air traffic control (ATC). About 150 feet AGL, the lights on the instrument panel blinked. The pilot then selected flaps to 30 degrees and configured the airplane for landing, while the safety pilot, once again, attempted to reestablish communications with the ATC tower. The pilot stated that she then moved the landing light switch to the on position, and immediately lost all electrical power. After receiving a green light gun signal from the tower, she continued the approach and visually verified that the main landing gear was extended. Upon touchdown the right main landing gear collapsed, and the airplane departed the runway sustaining substantial damage to the right horizontal stabilizer. The pilot stated that no electrical or landing gear warning lights were illuminated for the duration of the flight.

The closest weather reporting facility was Miami-Opa Locka Executive Airport (KOPF), Miami, Florida. At 1953, an METAR from KOPF was reporting, in part: wind from 020 @ 5 knots; visibility, 10 statute miles; clouds and sky condition, clear; temperature, 75 °F; dew point 70 °F; altimeter, 29.93 inches of mercury.

A detailed wreckage examination is pending.



---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA17CA302	05/20/2017 1000 PDT	Regis# N175DH	Prospect, OR	Apt: Prospect State 64S
Acft Mk/Mdl CESSNA 175-UNDESIGNAT		Acft SN 56280	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR GO-300D		Acft TT 2954	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: STEPHEN OLDROYD		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Takeoff - Collision during takeoff/land
- 

## Narrative

The flight instructor reported that, during a demonstrated soft field takeoff, the right lift strut impacted the tops of three trees. The flight instructor continued to his destination with no other anomalies.

The airplane sustained substantial damage to the elevator.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA17CA325	06/01/2017 1345 UTC	Regis# N6193B	Ellington, CT	Apt: Ellington 7B9
Acft Mk/Mdl CESSNA 182-A		Acft SN 34193	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR O-470		Acft TT 12793	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: CONNECTICUT PARACHUTISTS INC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

2. Landing-landing roll - Landing area overshoot

## Narrative

According to the pilot, he landed the airplane on the 1,800-foot asphalt runway in the rain at 70 miles per hour with full flaps. He reported that on final, he had considered a go-around due to wind and weather, but "we were low, slow, and 130 pounds below maximum gross weight with very dynamic wind conditions at the time and there are apartment buildings about 400 yards beyond the end of runway 19."

During the landing, he touched down with a right crosswind, about 600 feet beyond the runway threshold.

He recalled that he, retracted the flaps, and pulled the control wheel all the way aft to put as much weight as possible on the main wheels, but he "felt our ground speed was fast and we must have a tailwind."

He applied heavy braking, and as the end of the runway approached, he applied full left rudder to avoid a gully that was just beyond the end of the runway.

The airplane exited the end of the runway and veered to the left. The airplane entered the gully and impacted vegetation.

The airplane sustained substantial damage to the right-wing spar and aileron.

The nearest METAR was 10 nautical miles east of the accident site, and reported that the wind was from 270ø at 13 knots and gusting to 20 knots. The visibility was 10 statute miles with light rain.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

Per the National Transportation Safety Board Pilot Aircraft Accident Report, the pilot noted that the accident could have been prevented by initiating a go-around after he realized that he could not land in the beginning of the first 1/3 of the runway. He noted that the approaching rain and wind condition added personal pressure to land before conditions deteriorated. Additionally, he reported that under normal, dry conditions, heavy braking was required to prevent an overrun.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA17CA310	05/27/2017 1310 PDT	Regis# N2262T	Fall River Mill, CA	Apt: Fall River Mills O89
Acft Mk/Mdl CESSNA A185-E		Acft SN 185-1420	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL IO-520-D		Acft TT 1926	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: JERRY JONES		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing-landing roll - Loss of control on ground

---

## Narrative

The pilot of the tailwheel-equipped airplane reported that, during the landing roll, the airplane "went hard right and with full left rudder and break [they] could not bring it back around". The airplane veered off the runway to the right, the left main landing gear collapsed, and the left wing impacted the ground.

The airplane sustained substantial damage to the left wing.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA18CA007	10/06/2017 2355 EDT	Regis# N5EC	Waterford, MI	Apt: Oakland County Intl PTK
Acft Mk/Mdl CESSNA T210-M		Acft SN 62373	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR TSIO-520-R11B		Acft TT 4387	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MIKE CLANCY		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Approach-IFR final approach - Miscellaneous/other

## Narrative

The pilot of the airplane reported that, while on an instrument flight rules approach to land in instrument meteorological conditions at night, he was "a little late descending" on the glide slope. He added that, during the approach, he increased the descent rate and also became "a little right of course". He noticed approach lights, but became "fixated" on the instruments while attempting to correct for being off course. Subsequently, the airplane struck the tops of trees and he immediately pulled up. He landed without further incident.

The airplane sustained substantial damage to the right wing, empennage and fuselage.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The automated weather observation system at the accident airport reported, about the time of the accident, that the wind was from 140ø at 5 knots, visibility \_ statute mile, light rain, clouds overcast at 200 ft. The pilot landed on runway 9, flying the RNAV (GPS) runway 9 approach.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA17CA423	07/06/2017 1815 PDT	Regis# N333GK	Yuba City, CA	Apt: Sutter County O52
Acft Mk/Mdl CESSNA T210L-M		Acft SN 21061282	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL TSIO -520-H			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: HILBERS, LARRY E.		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

2. Landing - Landing gear not configured

## Narrative

The pilot in the retractable landing gear airplane reported that he had made a normal approach, but he failed to extend the landing gear. The airplane touched down on the runway and skidded to a stop on the lower fuselage.

The airplane sustained substantial damage to the lower fuselage.

Per the National Transportation Safety Board Pilot Aircraft Accident Report, the pilot noted that the accident could have been prevented if he had performed a, "double and triple check of my GUMPS checklist."

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN16FA111	02/28/2016 859 CST	Regis# N477TC	Navasota, TX	Apt: Navasota Municipal Airport 60R
Acft Mk/Mdl CIRRUS DESIGN CORP SR20		Acft SN 1378	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO-360-ES6B		Acft TT 487	Fatal 4 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: AIR AKHTAR HEATING & AIR CONDITIONING LLC		Opr dba:		Aircraft Fire: NONE AW Cert: STN

## Events

1. Approach-VFR pattern downwind - Loss of control in flight

## Narrative

### HISTORY OF FLIGHT

On February 28, 2016, about 0859 central standard time, a Cirrus SR-20, N477TC, collided with terrain following a loss of control near the Navasota Municipal Airport (60R), Navasota, Texas. The flight instructor, the non-certificated pilot/owner who was receiving instruction, and the two passengers were fatally injured. The airplane was substantially damaged. The airplane was registered to Air Akhtar Heating & Air Conditioning LLC and was operated by the pilot/owner under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed, and no flight plan was filed. The instructional flight originated from the David Wayne Hook Airport (DWH), Spring, Texas, at 0818.

Radar data indicated that after departing DWH, the airplane turned northwest toward 60R. The last DWH air traffic control communication with the airplane was at 0821. Radar data indicated that the airplane subsequently entered a left downwind to runway 17 at 60R about 0836. The airplane turned onto base leg, turned onto final approach, and descended below radar coverage; at 0837:51, the airplane was on final approach to runway 17.

At 0839:37, radar data indicated a target about 0.75 nautical mile (nm) south of runway 17 at an altitude of 800 ft mean sea level (msl) that was consistent with the airplane having executed a touch-and-go landing on runway 17. The radar data indicated that the airplane then conducted a second touch-and-go landing before conducting a full stop landing about 0844:46. A still photo from a security camera at 60R, an uncontrolled airport, showed the airplane taxiing north on the taxiway at 0847:26.

At 0850:58 the airplane departed 60R, entered a left downwind for runway 17, and executed a second full stop landing. By 0858:51, the airplane had departed runway 17 and was climbing on a south heading.

Data recovered from the airplane's primary flight display (PFD) showed the same flight path as the radar data. In addition to GPS position and altitude, the PFD also recorded other parameters including airspeed, pitch, and roll attitudes. The PFD data indicated that, at 0859:02, while the airplane was climbing through 550 ft msl and about 92 knots indicated airspeed, it began to roll to the left and decelerate. Starting at 0859:06, the airplane started to pitch down and descend. At 0859:10, the airspeed decreased below 75 knots. At 0859:13, the airspeed had increased to about 79 knots, and the airplane had reached 61° left-wing-down before starting a rapid roll to the right, through an inverted position. At about the same time, the airplane began a rapid pitch down, reaching a 69° nose-down attitude.

Radar contact was lost at 0859:15 when the airplane was about .43 nm southeast of the departure end of runway 17 and about 0.16 nm from the accident site. The PFD data continued, and it showed that the airplane briefly recovered to nearly wings level at 0859:18, but then it began to pitch down again. The final data point recorded by the PFD was at 0859:19, and it showed the airplane in a 65° nose-down and 45° right-wing-down attitude at 268 ft msl and 89 knots indicated airspeed. There were no known witnesses to the accident.

At 0904:14, radar data indicated that another airplane departed runway 17 at 60R and completed one complete circle around the accident location descending from 1,300 ft msl to 600 ft msl before climbing and resuming a downwind entry to runway 17. The pilot of this airplane reported that he was practicing touch-and-go landings when he spotted the wreckage southeast of the airport. He subsequently reported the accident to local authorities. The pilot stated that he did not hear or see the accident airplane in the area before seeing the wreckage.

## PERSONNEL INFORMATION

The flight instructor's logbook(s) were not located during the investigation. On the application for his last Federal Aviation Administration (FAA) medical dated January 15, 2016, he reported having a total of 6,550 hours of flight time; 120 of those hours were flown within the previous 6 months. It is unknown how much

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

experience he had in SR-20 airplanes before flying with the airplane owner.

The airplane owner, who was receiving flight instruction, did not hold a student pilot or medical certificate. He had taken a FAA medical examination on October 20, 2015. Due to the pilot's history of arrests, the aviation medical examiner deferred issuing a medical certificate. The FAA requested additional information, which the owner did not supply. On January 20, 2016, the FAA sent a letter to the owner notifying him that they could not determine his eligibility for a medical certificate.

According to the owner's pilot logbook, he had a total of 106 hours of flight time of which 57.1 hours were in SR-20 airplanes. The owner had previously flown with the flight instructor on 11 dual instructional flights, which totaled 25.7 hours.

## AIRCRAFT INFORMATION

The airplane, serial number 1378, was a four-place, low-wing, single-engine airplane with fixed landing gear. The airplane was manufactured in 2003 and equipped with a Cirrus Airframe Parachute System (CAPS). The owner purchased the airplane on January 12, 2016.

Maintenance records indicated that the last annual inspection on the airframe was completed on January 12, 2016, at a total airplane and Hobbs meter time of 431.5 hours. The Hobbs meter at the time of the accident indicated 487.2 hours.

The airplane was equipped with a 210-horsepower, Continental Motors IO-360-ES6B engine, serial number 357628. The last annual inspection of the engine was completed on January 12, 2016, at an airframe total time of 431.5 hours. The last maintenance entry in the engine logbook was an oil and oil filter change on February 26, 2016, at an airframe total time of 481.6 hours.

There were no entries in the engine logbook showing that the engine had been overhauled or torn down; however, during the postaccident engine examination it was discovered that the crankshaft and bearings were not the original parts installed when the engine was manufactured in 2003. The owner of the maintenance facility that performed the most recent annual inspections stated that the engine had been removed for a teardown inspection for metal contamination in April 2015. Records of the teardown inspection provided by the maintenance facility and the engine overhaul facility that performed the teardown inspection indicated that the engine overhaul facility completed the teardown inspection on August 17, 2015. A copy of the logbook entry prepared by the engine overhaul facility stated, in part, that the engine was "disassembled for metal contamination due to #6 piston burnt, replace cracked crankshaft with customer supplied New VAR crankshaft, repair 6ea.cylinders as necessary." The owner of the maintenance facility stated that the facility provided the previous airplane owner with the information and records for the engine logbook.

The airplane was fueled twice the day before the accident. The time on the fuel receipt indicated that the last fueling took place at 1655 when the airplane was fueled with 22.6 gallons of 100LL aviation fuel. According to the operator who fueled the airplane, the fuel added had topped-off the fuel tanks. It is not known if the airplane was flown between the last fueling and the accident flight.

Cirrus Aircraft performed stall speed calculations for the airplane. The calculations showed that, at gross weights of 2,904 pounds (full fuel) and 2,688 pounds (20 gallons of fuel), the flaps up stall speeds at 1g would have been 78 knots calibrated airspeed (KCAS) and 75 KCAS, respectively.

## METEOROLOGICAL CONDITIONS

## WRECKAGE AND IMPACT INFORMATION

The accident site was located about 0.43 mile southeast of the departure end of runway 17 at 60R in a lightly wooded area that was surrounded by open pasture. The airplane came to rest in the middle of a field that was bordered by three large trees spaced about 60 ft apart forming a triangular shape around the wreckage. The terrain at the accident site was wet and muddy. The main wreckage consisted of the entire airplane with a minor amount of airplane debris scattered in the immediate surrounding area. The airplane came to rest upright on a magnetic heading of 60ø.

Although it sustained impact damage, the empennage was relatively intact. The elevator remained attached to the horizontal stabilizer, which remained attached to the empennage. The rudder remained attached to the vertical stabilizer, which remained attached to the empennage. A 6 to 8-inch-deep ground scar was located under the tail tie down and rudder. The bottom of the rudder was crushed upward. Both elevator and rudder control continuity were verified.

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

The elevator trim motor was positioned to slightly nose down trim.

The spar cover, wing spar, and wings were angled downward, and the floor under the cabin seats exhibited impact damage. There was a ground impact scar correlating to the leading edge of both wings.

The entire leading edge of the left wing was crushed rearward. A 45° tear was present midspan in the top skin of the wing. The left aileron sustained impact damage, and it remained attached to the wing by its inboard hinge. The position of the roll trim motor was between neutral and full left trim. The left flap remained attached to the wing and was fully retracted.

The leading edge of the right wing was crushed aft. The outboard section of the upper wing skin was mostly separated from the torque box structure, and spar damage was observed. The right aileron and flap both exhibited impact damage; however, they remained attached to the wing. The right flap was fully retracted.

The right aileron cable was separated about 2 ft away from the cross-over turnbuckle. The separated ends of the cable showed signatures consistent with an overload separation. Aileron control continuity for the rest of the cable circuit was verified. The flap actuator was extended about 4 inches, which correlated to a fully retracted flap position.

Both wing fuel tanks were compromised, and there was no fuel present in the tanks. However, first responders reported there was a strong odor of fuel near the wreckage.

The four seats remained attached to their respective seat tracks and floor mounts. Both the left rear seat and the right front seat showed deformation to the left. All seat belt inertial reels functioned except for the left front seat. The left front seatbelt could be pulled out, but did not retract due to damage.

The CAPS activation handle was observed in its handle holder. The activation handle holder mounting bracket was bent downward and aft with an S-shaped bend. The rocket motor was expended and found on the ground near the airplane. The partially packed parachute bag was on the ground near the wreckage. The harnesses, risers, and a portion of the suspension lines had deployed. The three-ring release mechanism remained loosely interlocked. The break-away cover for the parachute enclosure was located on the ground near the rudder, indicating that the system had deployed during the ground impact.

An external examination of the engine was conducted at the accident site. The engine remained attached to the engine mounts, which remained attached to the firewall. The forward portion of the engine was buried at an angle of about 25° with only the top of the propeller spinner remaining above ground level. The firewall had impacted the rear of the engine with some of the engine accessories making an imprint on the firewall.

All engine cylinders displayed varying degrees of impact damage and remained attached to the crankcase. The crankcase sustained impact damage but was intact. The oil cooler remained attached to the engine. The oil filter and filter adapter had separated from the engine.

Both magnetos had separated from the engine. Both magneto impulse coupling engaged when the magneto drives were turned by hand. The ignition harness sustained impact damage. The top spark plugs were in place and undamaged. The bottom spark plugs were not removed during the on scene examination.

The fuel pump sustained impact damage. The fuel line going to the pump inlet remained secured at both the pump and the fuel bowl. The fuel line was removed from the fuel bowl, and no fuel was present in the line; however, there was fuel present in the fuel bowl. The throttle and fuel metering assembly remained attached to the engine. The throttle control arm remained secured to the shaft, and the throttle cable rod end remained secured to the throttle arm. The throttle position was observed at idle. The fuel manifold valve was intact, and it remained attached to the engine. All of the fuel nozzles were intact.

The exhaust system sustained impact damage with bent exhaust risers and flattened exhaust outflow pipes. The induction system sustained impact damage.

The propeller remained attached to the propeller flange. Both propeller blades remained intact within the propeller hub. One blade displayed forward bending, and the other propeller blade was bent aft.

During the on scene examination, there were no anomalies identified with the airframe, engine, or propeller that would have precluded normal operation of the airplane.



## MEDICAL AND PATHOLOGICAL INFORMATION

The Central Texas Autopsy LLC, Lockhart, Texas, completed autopsy examinations for both the flight instructor and the airplane owner. The autopsy report for both listed the cause of death as multiple blunt force injuries.

The FAA Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma, conducted toxicological testing for both the flight instructor and the airplane owner. The tests conducted on the instructor were negative for alcohol and tested drugs.

Toxicology testing for the airplane owner detected diphenhydramine in cavity blood at 69 ng/ml and in urine. Naproxen was detected only in urine. Diphenhydramine is a sedating antihistamine used to treat allergy symptoms and as a sleep aid. It is available over the counter under the trade names Benadryl and Unisom and carries the following FDA warning: "may impair mental and/or physical ability required for the performance of potentially hazardous tasks (e.g., driving, operating heavy machinery)." Naproxen is an anti-inflammatory analgesic available over the counter and by prescription with the names Aleve and Naprosyn, respectively.

## TESTS AND RESEARCH

### Primary Flight Display (PFD)

The PFD was removed from the instrument panel and sent to the NTSB Recorder Laboratory for download. Impact damage to the PFD disabled the ability to read the data directly from the unit, so an extraction of the interior memory module was performed. See the History of Flight section of this report for a discussion of the data recovered from the unit.

### Multifunction Display (MFD)

The compact flash card from the MFD was removed and sent to the NTSB Recorder Laboratory. The laboratory verified that there was no recorded data on the card, which was expected since the airplane was not equipped with the exhaust gas temperature and cylinder head temperature probes required for engine monitoring.

### Engine Teardown Examination

The engine was shipped to the Continental Motors, Inc., factory in Mobile, Alabama, for a teardown examination. The engine was disassembled, and the internal engine components including the crankshaft, camshaft, cylinders, pistons, bearings, and connecting rods appeared to be capable of normal operation. The crankshaft main journals, connecting rod journals, and main bearings displayed normal operating and lubrication signatures. The crankshaft to camshaft timing was verified to be correct. The piston pins for all cylinders were able to be pushed out by hand. There was no carbon build-up observed on the piston pins.

Both magnetos were bench tested with a slave ignition harness. Both magnetos produced a spark on all posts when bench tested. All spark plugs were removed and appeared to be in good condition with normal operation signatures.

The fuel pump, fuel manifold assembly, and throttle/fuel metering assembly were tested to manufacturer's production standards. The fuel pump was placed on a production test bench, and it was noted that there was a significant leak at the fuel pump relief valve diaphragm, which was consistent with impact damage to the fuel pump. The throttle body and fuel pump tested slightly out of tolerance at some of the test points; however, the fuel flows noted would not have prevented normal operation of the engine. The fuel manifold assembly tested within specifications.

The oil pump was removed from the engine and disassembled. The pump gears were intact. The oil screen and oil filter were free of debris.

As previously discussed in the Aircraft Information section of this report, the postaccident teardown revealed indications that the engine had been disassembled at some point since it was manufactured. There were no anomalies noted during the postaccident teardown that would have prevented normal operation of the engine or production of rated horsepower.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# WPR18LA037	11/27/2017 1205 MST	Regis# N2526C	Tucson, AZ	Apt: La Cholla Airpark 57AZ
Acft Mk/Mdl COLUMBIA AIRCRAFT MFG LC41		Acft SN 41569	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR TSIO-550-C			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BODIE AVIATION LTD		Opr dba:		Aircraft Fire: GRD
				AW Cert: STN

---

## Events

1. Taxi-from runway - Sys/Comp malff/fail (non-power)
- 

## Narrative

On November 27, 2017, about 1205 mountain standard time, a Columbia LC41 550FG, N2526C, experienced a brake fire after an aborted takeoff at La Cholla Airpark (57AZ), Tucson, Arizona. The pilot and the pilot-rated passenger were not injured; the airplane sustained structural damage to the fuselage. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed, and no flight plan had been filed.

In a telephone conversation with the National Transportation Safety Board investigator-in-charge, the pilot reported that the engine surged during takeoff roll and he aborted the takeoff. He waited for the engine to run smoothly, then attempted another takeoff, but the engine surged again. He aborted the takeoff a second time and, during the aborted takeoff roll, the brakes caught fire. The fire damaged the brake hydraulic lines and the airplane subsequently rolled off the runway.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# ANC17CA038	07/21/2017	1200 AKD	Regis# N364RA	Dillingham, AK	Apt: Shannon Pond OZ3
Acft Mk/Mdl DEHAVILLAND DHC 2-MARKI			Acft SN 364	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl P&W R-985 SERIES			Acft TT 15677	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BAY AIR INC			Opr dba:		Aircraft Fire: NONE
					AW Cert: STN

---

## Events

1. Takeoff - Miscellaneous/other

---

## Narrative

The pilot stated that he was departing on a post-maintenance flight check in a float-equipped airplane from a short waterlane, at a remote unimproved seaplane base. While taxiing for departure, he left the wing flaps in the up position to aid in turning the airplane on the water. After aligning the airplane for the takeoff run, he applied full power and the airplane accelerated onto the step. While attempting to rotate, he realized that he had forgot to reset the wing flaps to the takeoff position. He attempted to reset the manually operated hydraulically actuated wing flaps, but the airplane impacted the waterlane's far bank sustaining substantial damage to the left wing, and left-wing strut. The pilot stated that there were no preaccident mechanical anomalies that would have precluded normal operation.

In the recommendation section of the NTSB Accident/Incident Reporting Form 6120.1, the pilot stated that the accident may have been prevented if he would have utilized the airplane's checklist or rechecked the position of the wing flaps.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA18CA016B	10/06/2017	800 MDT	Regis# CFCKX	Albuquerque, NM	Apt: N/a
Acft Mk/Mdl LINDSTRAND LBL240A			Acft SN 165	Acft Dmg: NONE	Rpt Status: Factual Prob Caus: Pending
			Acft TT 1135	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: SUNDANCE BALLOONS (2008) LTD			Opr dba: SUNDANCE BALLOONS		Aircraft Fire: NONE
					AW Cert: STB

---

## Events

1. Landing - Collision during takeoff/land

## Narrative

The Ultramagic balloon pilot reported that, during a balloon festival, after a local sightseeing flight, he landed the balloon and decided to wait for the ground crew to locate the balloon before deflating. He added that, as the balloon was deflating, he "heard a basket sliding across the top of [his] balloon". The balloon rotated counter-clockwise and the balloon basket, still loaded with passengers, rolled upside down.

The Ultramagic balloon sustained substantial damage to the burner rack. One passenger sustained serious injuries.

The Lindstrand balloon pilot reported that, during landing, there were two balloons in his flight path. He added that he climbed and passed the first balloon, but was unable to pass the second. He reported that, "I brushed him with my basket on the top of his balloon." He landed the balloon without further incident.

The Ultramagic pilot and the Lindstrand operations manager reported that there were no preaccident mechanical failures or malfunctions with the balloons that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA18FA030	11/23/2017 1515 EST	Regis# N6894N	Starke, FL	Apt: Cecil VQQ
Acft Mk/Mdl MOONEY M20C-NO SERIES		Acft SN 680164	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360			Fatal 1 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: STEELE HERMAN E		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

## Events

1. Approach-IFR missed approach - Loss of control in flight

## Narrative

On November 23, 2017, about 1515 eastern standard time, a Mooney M20, N6894N, impacted terrain near Starke, Florida. Instrument meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed for the 14 Code of Federal Regulations (CFR) Part 91 personal flight from Ocala International Airport-Jim Taylor Field (OCF), Ocala, Florida to Cecil Airport (VQQ), Jacksonville, Florida. The airplane was destroyed by impact forces. The private pilot was fatally injured. The flight originated about 1500 eastern standard time from OCF.

According to a friend of the pilot, earlier on the day of the accident flight she flew as a passenger with the pilot in the accident airplane to OCF. She said that the flight was uneventful, up until they approached OCF. Prior to landing at OCF, the weather became "very turbulent" as the pilot tried to remain on course. The pilot mentioned that he was trying to maintain altitude as he was preparing for landing. After he landed she said that it was "very windy and raining very hard." They went inside the FBO where the pilot mentioned that he had to get to VQQ for his daughter's birthday and Thanksgiving. The witness said that he should "wait it out", and he agreed. According to the witness, he waited about 45 minutes before he departed.

According to FBO personnel, as the pilot waited for the weather to clear up he asked them to top off his fuel tanks. They advised the pilot that the weather was very bad, and he should wait for the fuel. The pilot said that he needed the fuel now because he was trying to get to his daughter's house for Thanksgiving, and requested the line personnel wipe his fuel caps with a towel. After about 45 minutes, the pilot said that he was "heading out," and was asked if he found a break. The pilot laughed and said he was "gonna go for it." They advised him to be safe and have a good flight.

Review of preliminary air traffic control radar and voice communication information from the Federal Aviation Administration (FAA) Jacksonville Air Route Traffic Control Center revealed that as the pilot was on approach to VQQ, controller cleared him for the ILS Runway 36R instrument approach. While on final, the radar controller advised the local controller that the pilot was making erratic turns. Shortly after, the pilot executed a missed approach while on a 5-mile final. The controller cleared the pilot to 3,000 feet and asked if he would like to go to Jacksonville International Airport (JAX), Jacksonville, Florida, where the weather was better; the pilot replied affirmative. The controller asked the pilot if he was able to climb and make turns, the pilot replied "affirmative." Shortly after the last communication, radar contact was lost with the airplane and an alert notice (ALNOT) was issued.

The local authorities were notified, and a search ensued. The airplane was located at 1600 in a field near the Camp Blanding Joint Training Center.

The pilot, age 73, held a private pilot certificate with a rating for single engine land airplane and instrument airplane. He also held an FAA third-class medical certificate issued July 11, 2016. A review of the pilot's logbook revealed that the last entry was dated September 8, 2017. The total time entered was 3,146 flight hours. His total actual instrument time was recorded as 527 flight hours. The pilot accumulated 400 flight hours in the accident airplane make and model, and 4 hours within the last 90 days. Further review revealed a total accumulation of 27 flight hours and 8 hours of instrument time for the year of 2017.

At 1511, the recorded weather at VQQ included winds from 030 at 12 knots, 2 statute miles visibility in mist, and overcast clouds at 900 feet above ground level. The temperature was 63øCelsius (C), the dew point was 63ø C, and the altimeter setting was 29.87inches of mercury.

The wreckage came to rest on 314ø heading about 20 miles from VQQ. Examination of the accident site revealed the fuselage was broken into two parts. The cockpit and empennage separated aft of the rear seat at the wing spars. All flight control surfaces were located at the accident site along the debris path.

All flight controls were destroyed, and respective control tubes were impact-damaged. Movement of the flight control tubes could not be established, but the tubes from the yoke mounts to the wing roots were present. Engine and propeller controls were impact damaged and did not reveal useful information. The fuel selector was noted in the left wing tank position and 10 gallons of AVGAS was defueled from the tank. Flight control tubes in the left wing were attached to the left aileron and the aileron remained attached to the wing surface. The flap remained attached to the wing and the flap control tubes were damaged. The position of the flaps could not be established.

Examination of the right wing revealed that it was fragmented along the debris path. All flight control surfaces were accounted for and were impact damaged. The flight surface control tubes were located throughout the debris path and were fragmented.

The empennage was buckled with both horizontal stabilizers and elevators remaining attached. The control tubes remained attached and were broken at the separation point. The vertical stabilizer was separated and located along the debris path. The rudder was separated from the vertical stabilizer and located along the debris path. The rudder and elevator control tubes were located within the empennage and buckled, but could not be manipulated.

Examination of the engine revealed that it was impact-damaged. The engine was partly disassembled for examination. The engine accessories were removed for examination. During examination of the engine; rotation of the crankshaft produced thumb compression and valve train movement on all four cylinders. The spark plugs were removed and were gray in color. The oil sump screen was removed and was free of debris. During the examination of the accessories it was noted that both ignition magnetos were impact damaged. The ignition leads were broken and not attached to the spark plugs. The magneto drive gear was rotated on both magnetos and produced spark on all ignition leads. The vacuum pump was disassembled and revealed all internal blades were intact. The internal drive coupling was intact and not damaged. Examination of the carburetor revealed it was separated from the engine and impact damaged. The carburetor was disassembled, and examination revealed that the bowl was free of debris. Examination of the fuel screen revealed insignificant amounts of debris. The throttle and mixture cable were separated from the carburetor and impact damaged.

Examination of the propeller revealed all 3 blades were damaged and remained attached to the hub and the hub remained attached to the crankshaft. The blades were labeled A, B and C. Blade A was bent aft and had chordwise scoring. Blade B remained relatively straight with scoring on the blade. Blade C exhibited "S" bending and scoring throughout the blade span.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Incident Rpt# OPS16IA010	04/03/2016 1345 UTC	Regis#	Jacksonville, FL		
Acft Mk/Mdl MOONEY M20R-NO SERIES		Acft SN 29-0357	Acft Dmg: NONE	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO-550 SERIES			Fatal 0	Ser Inj 0	
Opr Name:		Opr dba:		Aircraft Fire: NONE	

---

## Events

2. Enroute-climb to cruise - Air traffic event

---

## Narrative

On April 3, 2016, at about 0945 EDT, N57GX a Mooney M20P executed an evasive maneuver while climbing through 7,500' for 9,000' in response to N758PK, a Cessna C172G, at 8,000 feet. N57GX turned left and crossed below and in front of N758PK; the closest proximity was estimated to be 0.85 NM and 200'. Visual meteorological conditions prevailed and instrument flight plans for both aircraft were filed for the 14 Code of Federal Regulations Part 91 flights. There was no damage to either aircraft, and there were no reported injuries.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA18CA068 12/05/2017 1400 EST Regis# N2996Q Norfolk, VA Apt: Hampton Roads Executive PVG  
Acft Mk/Mdl NORTH AMERICAN T 6G-G Acft SN 49-3071 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending  
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091  
Opr Name: SHADOW VENTURES LLC Opr dba: Aircraft Fire: NONE

---

---



---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA17CA428	07/22/2017 1345 EDT	Regis# N3907E	Cartersville, GA	Apt: Cartersville VPC
Acft Mk/Mdl PIPER L 21B-B		Acft SN 53-7759	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320 B2B		Acft TT 3670	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: JORGENSEN BRYAN K		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing-landing roll - Loss of control on ground

---

## Narrative

The pilot in the tailwheel equipped airplane reported that the purpose of flight was to meet takeoff and landing requirements necessary to carry passengers. During the pilot's second landing, during the landing roll, the airplane veered to the right and he attempted to correct with left rudder. The rudder input was ineffective, and he attempted to gain directional control using differential braking. However, during the brake applications the airplane nosed over and came to rest inverted.

The airplane sustained substantial damage to the horizontal stabilizer and the rudder.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# GAA17CA338	06/14/2017 915 CDT	Regis# N33764	Estherville, IA	Apt: Estherville Muni EST
Acft Mk/Mdl PIPER PA 28-180		Acft SN 28-7505178	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360 SER			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MARK WENZEL		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing - Hard landing
- 

## Narrative

The solo student pilot reported that, as the airplane entered ground effect, while landing in crosswind conditions, a gust of wind lifted the airplane and pushed it to the left. He added that he initiated a go-around and "[pushed] the nose down slightly to gain lift". He further added that, during the go-around, he "must have relaxed the aileron countering the wind", and a gust of wind pushed the airplane to the left. Subsequently, the airplane impacted the ground and spun around.

The airplane sustained substantial damage to the engine mount.

The student pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

The automated weather observation system located on the airport reported, about 23 minutes before the accident, the wind was from 180ø at 15 knots, gusting to 21 knots. The student pilot landed on runway 16.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# CEN18LA048	12/03/2017 1910 EST	Regis# N722CF	Jeffersonville, IN	Apt: Clark Rgnl JVY
Acft Mk/Mdl PIPER PA 31-310-UNDESIGNAT		Acft SN 31-7300968	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING TI0-541 SER			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: LUFTLADDER INC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing - Landing gear not configured
- 

## Narrative

On December 3, 2017, about 1910 eastern standard time, a Piper PA-31-310, N722CF, was damaged during a wheels-up landing on runway 18 at the Clark Regional Airport (JVY), Jeffersonville, Indiana. The pilot and two passengers were not injured. The airplane received substantial damage to fuselage longerons and the aft flange of the main wing spar carry through. The aircraft was registered to Luftladder Inc. and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions existed at the time of the accident. A visual flight rules flight plan had been filed. The flight originated from the Wellsville Municipal Airport (ELZ), near Wellsville, New York at an unconfirmed time and JVY was the intended destination.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA17CA293	05/18/2017 1000 EDT	Regis# N34JM	Tunkhannock, PA	Apt: Skyhaven 76N
Acft Mk/Mdl PIPER PA 34-220T		Acft SN 3449177	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL LTSIO-360RB2B		Acft TT 1422	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: AUTO MILESTONES LLC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Landing - Aerodynamic stall/spin

---

## Narrative

The pilot reported that, during landing and while in ground affect, "the airplane suddenly, and without an aural stall warning, lost lift and was 'forced' onto the runway". Subsequently the nose gear collapsed, and the airplane veered off the runway to the right.

The airplane sustained substantial damage to the left wing.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

The automated weather observation system located about 15 miles from the accident site reported, about 6 minutes before the accident, the wind was from 230ø at 10. The pilot landed on runway 19.

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA18LA032	11/25/2017 1345 EST	Regis# N263DM	Ebensburg, PA	Apt: N/a
Acft Mk/Mdl PIPER PA 34-220T-220T		Acft SN 348133101	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR TSIO-360 SER			Fatal 0 Ser Inj 4	Flt Conducted Under: FAR 091
Opr Name: ZOLLINGER WAYNE D		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

## Events

1. Approach-VFR go-around - Loss of control in flight

## Narrative

On November 25, 2017, about 1345 eastern standard time, a Piper PA 34-220T, N263DM, was substantially damaged when it collided with trees during a go-around at the Ebensburg Airport (9G8), Ebensburg, Pennsylvania. The private pilot and three passengers were seriously injured. The airplane was registered to and operated by the pilot as a 14 Code of Federal Regulations Part 91 personal flight. Visual meteorological conditions prevailed. No flight plan was filed for the flight that originated at the Daviess County Airport (DCY), Washington, Indiana, about 1100, and destined for 9GB.

The pilot stated that the airplane's left engine had just recently started to leak a significant amount of oil; however, the source of the leak could not be located. On the day of the accident, the pilot said he topped off his fuel tanks and put 2 quarts of oil in the left engine, bringing the oil level up to 7 quarts. He then departed for Pennsylvania. The flight was uneventful until he was about 10 to 15 miles out from 9G8, when the left engine low-oil-pressure light came on. When the airplane was 5 miles from the airport, the left engine experienced a total loss of power and the propeller feathered. The wind at the destination airport was 280° at 12 knots gusting to 16 knots, so the pilot initially planned to land on runway 25; however, due to only having one working engine, he elected to land downwind on runway 07. The pilot said he turned onto the base leg of the traffic pattern about 1/2-mile out on to final, but ended up being too fast and high. The pilot decided to go-around and retracted the gear and kept the flaps extended at 10°. As the airplane began a shallow climb, the pilot entered a left turn, and with the wind was pushing his right wing up, to avoid mountains that were in front of him. While in the turn, the pilot realized that he was "not going to make it" and increased the right engine's throttle fully forward. He knew this would over-boost the engine and it eventually stopped producing power. The airplane stalled and impacted trees.

The airplane came to rest upright in heavily wooded terrain. There was no post-impact fire. A large amount of oil was found on the underside of the left wing. The airplane wreckage was recovered and secured for further examination.

The pilot held a private pilot certificate with ratings for airplane single and multiengine land, as well as instrument airplane. His last Federal Aviation Administration (FAA) third-class medical certificate was issued on June 12, 2017. At that time, he reported a total of 376 total flight hours.

Weather at John Murtha Johnstown-Cambria County Airport, about 7 miles southwest of the accident site, at 1354, was reported as wind from 260° at 16 knots gusting to 21 knots, visibility 10 miles, few clouds at 3,600 ft, overcast ceiling at 5,000 ft, temperature 11° C, dewpoint 02° C, and an altimeter setting of 29.71 inHg.

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR18LA040	11/25/2017 1420 EST	Regis# N57351	Odessa, FL	Apt: N/a
Acft Mk/Mdl PIPER PA-28-140		Acft SN 28-7425097	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320 SERIES		Acft TT 4722	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MATERA JOHN T		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

## Events

1. Enroute-cruise - Loss of engine power (total)

## Narrative

On November 25, 2017, about 1420 eastern standard time, a Piper PA28-140, N57351, was substantially damaged during a forced landing near Odessa, Florida. The private pilot/owner sustained minor injuries. The personal flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed.

According to the pilot, he departed Tampa Executive Airport (VDF) Tampa, Florida about 1340 for a local flight via the Clearwater Beach area. After reaching that area the pilot turned around to return to VDF. The flight was being conducted on the left fuel tank, at an altitude of about 2,500 feet. After the turnaround, the pilot switched off the electric fuel boost pump. About 5 minutes later, the engine lost power; the pilot reported that the rpm dropped to about 700 and remained at that value. The pilot turned on the electric boost pump, but the engine did not regain power. He then switched to the right fuel tank and manipulated the throttle, but again the power was not restored. The pilot then selected an open field that he deemed suitable for a forced landing. During his approach to the field, the pilot switched the fuel selector back to the left tank, again to no avail.

The field was bounded by two sets of powerlines; the pilot's initial assessment was that he could overfly both sets. As he overflew the first set, he determined that the airplane would not clear the second set, so the pilot then maneuvered the airplane to fly under the second set of powerlines. The right wing of the airplane struck the pole supporting the powerlines, and the airplane came to rest in the field a few hundred feet beyond the struck pole. The pilot shut down the airplane and summoned assistance via telephone.

Post accident examination of the airplane by recovery personnel revealed that the left fuel tank was empty, the right fuel tank was nearly full, and the fuel selector was set to the left tank. The wreckage was recovered to a secure facility for possible additional examination.

The pilot held a private pilot certificate with an airplane single engine land rating. He reported a total flight experience of about 149 hours, of which about 142 hours were in the accident airplane make and model. His pilot certificate was issued in September 2015, and his most recent Federal Aviation Administration (FAA) third-class medical certificate was issued in January 2017.

FAA information indicated that the airplane was manufactured in 1973, and was equipped with a Lycoming O-320 series engine. According to the pilot, the airplane and engine had accumulated a total time in service of about 4,722 hours, and the engine had accumulated about 638 hours since its most recent overhaul. The most recent annual inspection was completed in June 2017.

The 1853 and 1953 automated weather observations from Tampa International Airport (TPA), located about 12 miles southeast of the accident site, included winds from 250 degrees at 7 knots, visibility 10 miles, few clouds at 4,500 feet, temperature 23 degrees C, dew point about 14 degrees C, and an altimeter setting of 29.99 inches of mercury.

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

---

---

Accident Rpt# GAA18CA066 11/29/2017 1630 CST Regis# N744WT New Orleans, LA Apt: Lakefront NEW  
Acft Mk/Mdl ROBINSON HELICOPTER COMPANY Acft SN 11489 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending  
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091  
Opr Name: NEW ORLEANS HELICOPTERS LLC Opr dba: Aircraft Fire: NONE

---

---

# National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA401	07/07/2017 1600 CDT	Regis# N3203D	Paoli, IN	Apt: N/a
Acft Mk/Mdl ROBINSON HELICOPTER COMPANY	Acft SN 11598	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual	Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-540-F1B5	Acft TT 1827	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 137	
Opr Name: JMX HELICOPTERS	Opr dba:		Aircraft Fire: NONE	AW Cert: SPR

## Events

1. Maneuvering-low-alt flying - Aerodynamic stall/spin

## Narrative

The helicopter pilot reported that he was performing an agricultural flight and was in a hurry to spray the field because of a previous 3-hour delay caused by a broken fuel truck.

The pilot reported that the weight of the helicopter was sixty pounds above the helicopter's maximum gross weight, and "I approached the field with the understanding that I was heavier, and it was hotter and more windy than I originally planned for."

He reported that the helicopter was headed south, and the wind was from the southwest about 15 knots.

The pilot made a low altitude, low airspeed, left turn to the north, and the helicopter entered a nose low attitude and had a more rapid sink rate than he anticipated. The pilot aborted the turn and chose to maintain a southeast heading to utilize the crosswind to avoid powerline wires. He attempted to arrest the sink rate by increasing the collective, but the low rotor RPM horn sounded.

The helicopter impacted the ground and bounced, then it rolled onto its left side. The helicopter sustained substantial damage to the tailboom, and the main rotor system.

The nearest METAR was about 32 miles northwest at the time of the accident reported and the wind was from 230ø at 9 knots gusting to 16 knots. The temperature was 88øF and the dew point was 20øF. The field elevation was 696 feet and the density altitude was 2,786 feet.

According to the Federal Aviation Administration (FAA) Helicopter Flying Handbook, FAA-8083-21A (pg. 2-4, para. 5), turns in a helicopter increase the load factor exponentially, ultimately increasing the power requirement that is necessary to maintain the helicopter's altitude. Left pedal turns increase the quantity of anti-torque produced by the tail rotor, by demanding additional power from the 260-brake horsepower engine. Pilot flight control inputs demanding more power than the engine is capable of producing, with respect to the atmospheric conditions, adversely affects the helicopters ability to sustain its altitude. Available engine power is directly correlated to main and tail rotor RPM. When the engine fails to produce the required power to sustain airspeed and altitude at high DA, the main rotor blades will exceed their critical angle of attack, consequently decreasing main rotor blade RPM.

According to the FAA Helicopter Instructor's Handbook, FAA-8083-4 (pg. 8-4, para. 5), If a pilot begins a landing approach with a 10 knot tailwind, at some time in the approach, the helicopter experiences a zero knot airspeed, which means a total loss of translational lift and thrust. In order to maintain the approach angle, more power must be added.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the helicopter that would have precluded normal operation.



# National Transportation Safety Board - Aircraft Accident/Incident Database

---

Accident Rpt# ANC18LA010	11/19/2017 1030 EST	Regis# N1401J	Clearwater, FL	Apt: Clearwater Air Park CLW
Acft Mk/Mdl ROCKWELL INTERNATIONAL 112A		Acft SN 401	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO360 SER			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BENEDICT MARC A		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

---

## Events

1. Approach - Fuel related

## Narrative

On November 19, 2017, about 1030 eastern standard time, a Rockwell International 112A airplane, N1401J, impacted trees during a forced landing on a city street about one mile northeast of Clearwater Air Park (KCLW), St. Petersburg, Florida, following a total loss of engine power. The private pilot and sole passenger sustained no injuries and the airplane was substantially damaged. The flight was being operated as a 14 Code of Federal Regulations (CFR) Part 91 visual flight rules personal flight. Visual meteorological conditions prevailed and no flight plan was filed. The flight departed Zephyrhills Airport (KZPH), Zephyrhills, Florida about 1008 for the roughly 35 nautical mile flight to KCLW.

According to the pilot, prior to departing KZPH, he added about 30 gallons of fuel to the airplane, which filled the left fuel tank completely and the right tank was about 7/8 full. He performed a walk-around inspection, but did not sump the fuel system for contaminants prior to departure. The roughly 20-minute flight was conducted with the fuel selector on the left tank. When descending through 1,200 ft msl, the pilot conducted the before landing checklist, which included increasing the mixture to full rich, turning on the auxiliary fuel pump and switching the fuel selector to the "BOTH" position. He then reduced the throttle to slow the aircraft and felt "slight resistance" on the throttle lever. About 10 seconds after switching the fuel selector, he began to lose airspeed faster than anticipated. When he looked at the fuel flow indicator, he saw it slowly transition from 8 gallons per hour to zero and the engine subsequently lost all power. He placed the fuel selector back to the left fuel tank, but the engine would not restart. During the forced landing, the airplane impacted a tree in the median of a 4-lane street prior to impacting and coming to rest in a stand of trees adjacent to the roadway.

Video footage captured the airplane as it approached the roadway as well as the final impact. The initial impact with the tree in the median was not captured. The video depicts the airplane in a controlled, level descent. Due to the quality of the video, propeller rotation could not be determined.

The closest official weather observation station is St. Petersburg Airport (KPIE), St. Petersburg, Florida, which is located about 6 miles southeast of the accident site. At 0953, a METAR was reporting, in part, wind 230 $\emptyset$  at 11 knots; visibility 10 statute miles; clouds and ceiling clear; temperature 79 $\emptyset$  F; dew point 64 $\emptyset$  F; altimeter 29.95 inches of Mercury.

The airplane was equipped with a Lycoming Engines IO-360 series engine. A detail engine and airframe examination is pending.