National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA18CA096	**12/27/2017 1530 PST**	**Regis# N3945A**	**Upper Lake, CA**	**Apt: 1Q5**
Acft Mk/Mdl AEROPRO CZ EUROFOX-NO SERIES		**Acft SN 178 05**	**Acft Dmg: UNK**	**Rpt Status: Prelim** **Prob Caus: Pending**
			Fatal 0 **Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: DANNY HULL		**Opr dba:**		**Aircraft Fire:**

an airsafety.com e-product
Prepared From Official Records of the NTSB By:
Air Data Research
9865 Tower View, Helotes, Texas 78023
210-695-2204 - info@airsafety.com - www.airsafety.com

Accident Rpt# ERA17FA144	**04/02/2017 1530 EDT**	**Regis# N4017L**	**Knoxville, TN**	**Apt: N/a**
Acft Mk/Mdl BUCKEYE AVIATION DREAM		**Acft SN 16469**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 582E		**Acft TT 139**	**Fatal 1 Ser Inj 1**	**Flt Conducted Under: FAR 091**
Opr Name: DECOURSEY STANLEY L		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: LTSP

Summary

The sport pilot and the passenger were making a local flight in the powered parachute. The passenger, who survived the accident, reported that, about an hour into the flight, the pilot turned to the east toward the passenger's home. After overflying the passenger's home at low altitude, the pilot maneuvered the powered parachute to the east toward rising terrain and trees. The passenger's wife was outside her home at the time of the accident and noticed that the aircraft was flying low, and other witnesses also reported seeing the aircraft flying low before the accident. According to the passenger, the aircraft did not climb quickly enough to clear the trees; the landing gear struck about three trees; and the aircraft dropped into the woods striking tree limbs on the way down.

Postaccident examination of the wreckage did not reveal evidence of a preimpact mechanical malfunction or anomaly, and the passenger reported that he did not notice any significant change in engine speed before the aircraft struck the trees. The engine ran satisfactorily when tested after the accident.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's decision to maneuver the aircraft at low altitude, towards rising terrain, which resulted in an inflight collision with trees.

Events

1. Maneuvering-low-alt flying - Low altitude operation/event
2. Maneuvering-low-alt flying - Collision with terr/obj (non-CFIT)
3. Uncontrolled descent - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - C
2. Environmental issues-Physical environment-Terrain-Sloped/uneven terrain-Decision related to condition - C
3. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Altitude-Not attained/maintained - C

Narrative

HISTORY OF FLIGHT

On April 2, 2017, about 1530 eastern daylight time, a Buckeye Aviation Dream Machine powered parachute, N4017L, collided with trees and terrain at Knoxville, Tennessee. The sport pilot was fatally injured, and the passenger was seriously injured. The powered parachute was substantially damaged. The powered parachute was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91. Day, visual meteorological conditions prevailed, and no flight plan was filed for the local, personal flight. The flight originated at a private, grass airstrip about 1415.

The passenger reported that the preflight portion of the flight was uneventful. The takeoff was accomplished on the grass airstrip, and the flight departed to the west. About 1an hour later, the pilot turned to the east toward the passenger's home. After overflying the passenger's home, the pilot maneuvered the powered parachute to the east over rising terrain and trees. The aircraft did not seem to be climbing quickly enough to clear the trees, and the landing gear struck about three trees before the aircraft dropped into the woods, striking tree limbs on the way down. The passenger did not notice any significant change in engine speed before the collision. The passenger egressed his seat; however, he was unable to walk and was met by first responders and transported to a local hospital.

The passenger's wife was outside her home at the time of the accident. She noticed that the aircraft was flying "pretty low," and she stated that "it looked like they were flying barely high enough to go over the woods behind my house." She heard the aircraft striking tree limbs, followed by the sound of a "horrific" crash. She called 911 after asking a neighbor, who was an emergency room physician, to find the crash site.

Several local residents observed the aircraft in flight and noted that it was flying at a low altitude. One of these witnesses reported that the aircraft was "barely over the tree tops" and another reported that it appeared to be about 20 ft above the trees.

PERSONNEL INFORMATION

The pilot, who was seated in the front cockpit seat, held a sport pilot certificate. He did not hold nor was he required to hold a Federal Aviation Administration

(FAA) medical certificate. According to his pilot logbook, he had logged about 90 hours of total flight experience, all in Buckeye powered parachutes.

According to FAA records, on September 24, 2016, the pilot violated a temporary flight restriction (TFR) while flying the powered parachute near Neyland Stadium in Knoxville. The TFR was established for a University of Tennessee football game. The aircraft was observed inside the TFR, at less than 1,000 ft above the ground, heading north to south. The pilot was not communicating with air traffic control and did not have an operating transponder.

AIRCRAFT INFORMATION

The single-engine, tandem-cockpit powered parachute incorporated a fixed, tricycle landing gear. It was equipped with a Rotax 582E, two-stroke, two-cylinder reciprocating engine rated at 66 horsepower. Examination of maintenance records revealed that it was manufactured in 2005 and had accumulated about 139 hours since new. A condition inspection was completed on November 1, 2016.

METEOROLOGICAL INFORMATION

McGhee Tyson Airport (TYS), Knoxville, Tennessee, was located about 9 miles east-southeast of the accident site. The TYS weather at 1553 included wind calm, visibility 10 statute miles, sky clear, temperature 24øC, dew point 6øC, and altimeter setting 30.01 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The wreckage of the powered parachute was found in a wooded area about 880 ft northeast of the passenger's residence. The elevation at the accident site was about 100 ft higher than the elevation at the passenger's residence. All structure and components of the powered parachute were accounted for at the accident site. The powered parachute was found in the upright position. There was no fire.

The tubular metal cart was buckled or bent in several places. The fixed landing gear remained attached to the cart. The parachute wing and lines were adjacent to the cart and were entangled with broken tree branches. Continuity from the parachute to the cockpit flight controls was established. Both occupants were wearing helmets at the time of the accident, and an intercom system was installed.

The engine mounts were broken. The three-blade composite propeller remained attached to the engine, and the outer section of each blade was broken and splintered. Continuity from the cockpit controls to the engine was established. The 8-gallon fuel tank contained about 4 gallons of fuel, and no leaks were observed.

The spark plugs were removed and examined. They appeared normal in color and wear when compared to a Champion spark plug inspection chart. The ignition leads were undamaged. The exhaust manifold did not appear to completely cover the cylinder exhaust ports; however, no evidence of exhaust leakage was found. The propeller was turned by hand, and no internal restrictions were noted. Compression and suction were observed on both cylinders.

The propeller blades were removed to prepare for a test run of the engine. The throttle was found in the full forward position. It was retarded to idle for the test run. The engine was equipped with a manual pull starter. The engine started on the second pull and ran smoothly and without hesitation. No leaks were observed at the exhaust manifold. The engine was run at no higher than idle power due to the impact damage to the cart and the lack of an intact propeller. The engine run was discontinued by the National Transportation Safety Board (NTSB) investigator-in-charge after about 2 minutes. Postaccident examination of the wreckage did not reveal evidence of a preimpact mechanical malfunction or anomaly.

MEDICAL AND PATHOLOGICAL INFORMATION

The Knox County Regional Forensic Center, Knoxville, Tennessee, performed an autopsy of the pilot. The cause of death was multiple blunt force injuries, and the manner of death was accident.

Toxicological testing of the pilot was performed by a private laboratory designated by the medical examiner. Testing was negative for ethanol and major drugs of abuse, and 2% carbon monoxide was detected in blood.

Accident Rpt# CEN16FA290	**07/28/2016 821 CDT**	**Regis# N527TS**	**Fond Du Lac, WI**	**Apt: Fond Du Lac County FLD**
Acft Mk/Mdl FLIGHT DESIGN GMBH CTLS		**Acft SN 08-02-04**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912ULS		**Acft TT 960**	**Fatal 1 Ser Inj 1**	**Flt Conducted Under: FAR 091**
Opr Name: SPENCER DAVID D		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: LTSP

Summary

The private pilot departed the airport in the light-sport airplane and made a left turn back toward the airport while still over airport property. The airplane was at a low altitude when it rolled to the left and impacted terrain, consistent with a loss of control following an aerodynamic stall. Witnesses stated that the engine sounded abnormal. One witness reported that the airplane did not climb above treetop height before it rolled into a steep left turn and descended into terrain. An additional witness did not see the accident occur but heard the pilot state on the radio that he was making an immediate return to the airport. The terrain in front of the pilot on departure was commercial properties and parking lots, and was unsuitable for landing.

During postaccident examination, contaminants and corrosion were found in both carburetor bowls. The piston slide in the carburetor for the Nos. 2 and 4 cylinders was found stuck in the idle position in its bore on the carburetor chamber top. A white substance was present on the interior surface of the bore that prevented the piston from sliding up and down within the bore. Testing of the substance determined that it was likely contamination produced by oxidation and corrosion of the aluminum alloy carburetor chamber top because of exposure to water-contaminated fuel. The engine manufacturer had previously issued a Service Instruction (SI) that warned of the possibility of poor performance or engine stoppage due to contaminants in the carburetor float chamber. One of the sources of contaminants identified in the SI was corrosion caused by high water content in fuel. Both carburetors had been inspected in accordance with the SI about 130 flight hours and 19 months before the accident, which was within the SI recommended 200-hour inspection interval. The contaminants found in the carburetors were indicative of the use of fuel with high water content at an undetermined time, most likely after compliance with the SI.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: Carburetor contamination following exposure to water in the fuel, which resulted in a carburetor malfunction and a partial loss of engine power. Contributing to the accident was the pilot's loss of airplane control that resulted in a stall.

Events

1. Prior to flight - Fuel contamination
2. Initial climb - Powerplant sys/comp malf/fail
3. Initial climb - Loss of engine power (partial)
4. Emergency descent - Off-field or emergency landing
5. Post-impact - Part(s) separation from AC

Findings - Cause/Factor

1. Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid condition - C
2. Aircraft-Aircraft power plant-Engine fuel and control-Fuel control/carburetor-Malfunction - C
3. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-(general)-Not attained/maintained - F
4. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - F

Narrative

This report was modified on January 2, 2018. Please see the docket for this accident to view the original report.

HISTORY OF FLIGHT

On July 28, 2016, about 0821 central daylight time, a Flight Design GMBH model CTLS airplane, N527TS, impacted terrain following a loss of engine power after takeoff. The private pilot was fatally injured, and the passenger was seriously injured. The airplane was substantially damaged. 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 at the accident site about the time of the accident, and the flight was operated without a flight plan. The flight was originating from Fond du Lac County Airport (FLD), Fond du Lac, Wisconsin, at the time of the accident, and its destination was not determined.

Witnesses reported seeing the airplane take off from runway 36 and turn left back toward the runway while still over airport property. They added that the engine sounded abnormal. One witness stated that the airplane did not climb above treetop height before it rolled into a steep left turn and descended into terrain. An additional witness did not see the accident occur but heard the pilot state on the radio that he was making an immediate return to the airport.

Beginning about 0.2 miles north of the runway, terrain consisted of commercial properties and parking lots that were not suitable for landing.

PERSONNEL INFORMATION

Pilot

No pilot logbooks were located during the investigation, and the pilot's time in the make and model of the accident airplane could not be determined. The pilot reported 110 total hours on his last application for a medical certificate dated April 15, 2002. The pilot did not hold a current FAA medical certificate, and he was not required to hold one to operate the light-sport airplane.

Pilot-Rated Passenger

No pilot logbooks belonging to the pilot-rated passenger were located during the investigation. The pilot-rated passenger reported 2,136 total hours on his last application for medical certificate dated July 15, 1996.

AIRCRAFT INFORMATION

A review of the airplane's maintenance records revealed that a 200-hour carburetor service requirement per Rotax Aircraft Engines Service Instruction (SI)-912-021, "Inspections of Carburetors," was complied with on December 9, 2014. According to the records, the Hobbs meter read 829.5 hours at the time of the carburetor inspection. At the time of the accident, the Hobbs meter read 960.5 hours.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located 0.15 miles northwest of the departure end of runway 36 at FLD. Examination of the wreckage revealed that both wings separated from the fuselage, and the engine intruded into the cockpit area. Flight control continuity to the elevator and rudder was confirmed from the cockpit to each control surface. Flight control continuity was interrupted to both ailerons, but all observed breaks in continuity were consistent with overload failure during impact. A slight fuel smell was present at the accident scene. Both the left and right fuel tanks were compromised. Several ounces of liquid consistent with aviation fuel were recovered from the right-wing fuel tank, which appeared light blue in color and free of contaminants. The three blades of the composite propeller were broken and had separated near the propeller hub. The blade sections that were observed were absent chord-wise scratches or leading-edge damage. The engine was removed from the wreckage and examined separately at a secure location.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot initially survived the accident but died 12 days later. An autopsy was authorized and conducted on the pilot by the Fond du Lac County Medical Examiner's Office. The cause of death was attributed to multiple injuries sustained in an airplane accident. Forensic toxicology was not performed.

TESTS AND RESEARCH

The engine was examined on August 17, 2016, in the presence of the National Transportation Safety Board investigator-in-charge. When examined, the engine remained attached to the engine mount. The exhaust system was damaged, and the muffler was not attached to the engine. No anomalies were noted with the ignition system. The fuel pump was removed and hand actuated. Liquid consistent in smell and color to aviation fuel was contained within the pump and squirted out when the pump was actuated. The oil cooler was detached and impact damaged. The engine was equipped with a non-approved aftermarket oil filter. The filter was cut open and inspected for ferrous material; no anomalies were noted. No anomalies were noted with the cylinders and cylinder heads. The engine was hand rotated; continuity was verified, and no anomalies were noted. The radiator was impact damaged. The air filtration system was not available for examination.

The engine was equipped with two carburetors. One carburetor fed the Nos. 1 and 3 cylinders, and the second carburetor fed the Nos. 2 and 4 cylinders. For purposes of this report, the carburetors will be referred to as the 1/3 carburetor and the 2/4 carburetor.

Both carburetors' float bowls were removed. Flaking was noted on the floats, and contamination and corrosion were found on the bottom of float bowls. Each carburetors' main jets were clear of obstructions, and no fuel was found within the carburetors.

In addition, the 2/4 carburetor's piston slide was stuck in the idle position within its bore on the carburetor chamber top. The piston was removed from the chamber top, and contamination was found in the bore that prevented the piston from sliding up and down within the bore. Both carburetors were sent to the NTSB Materials Laboratory for further examination. Two black floats were present in each float bowl, and all four floats moved freely on their respective posts. Each float was weighed and subsequently submerged for 12 hours in a covered container of automobile gasoline. After soaking, the floats were removed from the gasoline and weighed again. Each float had a total weight gain of less than 1%. The sum of the weights for the two floats from each carburetor was 5.668 grams for the 1/3 carburetor and 5.674 grams for the 2/4 carburetor. The maximum allowable combined weight for carburetor floats in each carburetor is 7 grams per the BRP-Powertrain Maintenance Manual for the Rotax 912-series engines.

The interior surfaces of the bowls had black areas along with areas of white film and other accumulations of white and yellow corrosion products. The black areas were mostly circular in shape and located on the lower surfaces of the bowls. A white film was present in many areas, particularly on the lower surface and side of the bowl for the 1/3 carburetor. Isolated areas with thicker accumulations of white material were observed in some areas. When disturbed with tweezers, the accumulation had a powdery consistency, and the underlying surface of the bowl was black. Some areas had an accumulation of yellow material. When disturbed with tweezers, the accumulation largely maintained its shape but was easily broken into smaller crystalline chunks when pressure was applied. The surface under the yellow accumulation was also colored black.

Samples of the white and yellow accumulations were analyzed and both samples had large peaks of zinc and oxygen consistent with oxides associated with the cast zinc bowl. Both samples also showed smaller peaks of sulfur and lead. The yellow sample and areas of the white sample also showed a peak of aluminum. Additionally, the yellow sample showed peaks of iron and potassium and a higher peak of carbon. Some areas of the yellow sample also showed a peak of silicon.

During the laboratory examination of the carburetors, the piston slide from the 2/4 carburetor was reinserted; the springs and covers were put into place on both carburetors; and subsequently, both piston slides were moved up and down. It was noted that the piston slide from the 1/3 carburetor moved relatively easily while the piston slide from the 2/4 carburetor tended to stick. The piston slides were removed from the carburetors with the housings and were manipulated again. The piston slide from the 2/4 carburetor continued to tend to stick compared to the piston slide from the 1/3 carburetor.

The piston slides were removed from the covers again, and accumulations of white material of varying thickness were noted on the interior surfaces of the piston bores of both carburetors. The white material on the interior surface of the bore in the 1/3 carburetor cover appeared to be more evenly distributed around the surface than the material on the interior surface of bore in the 2/4 carburetor cover.

A sample of the white material from the piston bore in the 2/4 carburetor cover was removed and examined. The resulting spectrum showed high peaks of aluminum and oxygen, consistent with oxidation from the carburetor cover, which was made of an aluminum alloy.

ADDITIONAL INFORMATION

Rotax Aircraft Engines issued SI-912-021 on November 9, 2009. The following was extracted from that SI:

1.5) Compliance

- After engine installation/initial operation/return to service of an engine.

- When engine is running rough.

- And/or at the next scheduled maintenance event of carburetor (see Maintenance Manual for engine type 912/914 Series, current issue).

WARNING: Non-compliance with these instructions could result in engine damages, personal injuries or death.

3.1) General

Several carburetors have been found with contamination (dirt, remains of rubber from fuel lines and Loctite, resin-like substance, sediments etc.) in the float chamber.

WARNING: This contamination could possibly cause a partial or complete blockage of the idle or main jet or of other ducts vital for operation, leading to poor performance or stoppage of engine.

3.1.1) Possible shortcomings in the fuel system

- Dirt in the fuel system

- Missing or unsuitable fuel filter

- Clogged fuel filter

- Unsuitable fuel lines

- Dirt in fuel manifold

- Poor float chamber venting

- Insufficient flushing of the fuel system prior to initial engine operation

- Fuel pressure too low or too high

- Unsuitable fuel tanks and tank coatings

- Contaminated float chambers (e.g. corrosion caused by high water content in the fuel)

3.1.2) Fuel

Use only quality fuel as specified.

- EN 228 regular, EN 228 premium, EN 228 Super plus or AVGAS 100LL.

NOTE: The exact defined minimum requirements for fuel are specified in the relevant operators manual (for the relevant engine type) and the Service Instructions SI-912-016/SI-914-019 and SI-2ST-008 ,Selection of suitable operating fluids", current issue.

The Rotax 912ULS engine maintenance manual specifies removal/assembly of both carburetors every 200 hours.

Accident Rpt# CEN18LA068	**01/04/2018 1600 MST**	**Regis# N83SB**	**Montrose, CO**	**Apt: N/a**
Acft Mk/Mdl BARNES STEVEN D STEVE BARNES RV		**Acft SN 1171**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Prelim** **Prob Caus: Pending**
Eng Mk/Mdl LYCOMING O-320-B3B		**Acft TT 1795**	**Fatal 0** **Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: ON FILE		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

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

Narrative

On January 4, 2018, about 1600 mountain standard time, a Barnes RV-4 airplane, N83SB, lost engine power and executed a forced landing near Montrose, Colorado. The commercial rated pilot was not injured, and the airplane sustained substantial damage. The airplane was registered to and operated by a private individual under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed at the time of the accident, and a flight plan was not filed. The local flight departed the Clifford Field Airport (1CO4), Olathe, Colorado, about 1555.

According to the pilot, he departed 1CO4 and began a 120-mph cruise climb. After clearing some high terrain, the pilot leaned the engine mixture, the engine began to operate smoothly, and then lost total power. The pilot performed his emergency procedures which included an engine restart. The pilot pumped the throttle twice, the engine responded with "2 small bursts of 500-600 rpms", and then no additional engine power. The pilot executed a forced landing to a nearby private airfield. The pilot was unable to make the runway, and the airplane impacted terrain and farm equipment.

Accident Rpt# GAA18CA056	**11/23/2017 1100 MST**	**Regis# N234PB**	**Overgaard, AZ**	**Apt: Mogollon Airpark AZ82**
Acft Mk/Mdl BUEHLMANN PETER KITFOX MODEL 4		**Acft SN ICU096**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912		**Acft TT 900**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: PETER JOSEF BUEHLMANN		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

1. Landing - Loss of control on ground

Narrative

The pilot reported that, during the landing roll, the tailwheel equipped airplane veered to the right. He over corrected, the airplane exited the left side of the runway and ground looped to the left.

The airplane sustained substantial damage to fuselage and right wing.

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

Accident Rpt# WPR18LA050	**12/17/2017 1300 MST**	**Regis# N716JB**	**Caldwell, ID**	**Apt: Caldwell Industrial EUL**
Acft Mk/Mdl GRAY JIM ROBERT EXEC-UNDESIGNAT		**Acft SN EXEC-3000**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Prelim** **Prob Caus: Pending**
			Fatal 0 **Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: GRAY JIM R		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

1. Taxi - Powerplant sys/comp malf/fail

Narrative

On December 17, 2017, about 1300 mountain standard time, an experimental amateur-built Rotorway Exec series helicopter, N716JB, landed hard following a loss of engine power at Caldwell Industrial Airport, Caldwell, Idaho. The private pilot was not injured. The helicopter sustained substantial damage to the fuselage and tailboom during the accident sequence. The helicopter was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations (CFR) Part 91 as a personal flight. The local flight departed Caldwell about 1250. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot stated that he planned to perform a series of hover taxi maneuvers, and then fly the helicopter in the traffic pattern. After taxiing around the airport for about 10 minutes, he heard an unusual engine sound, and the engine then lost all power. He performed an autorotation, and the helicopter landed hard, spreading the skids.

Examination of the helicopter revealed that oil was leaking from the lower engine area, and a trail of oil was present on the ground in the areas that the helicopter was taxing.

Accident Rpt# CEN17LA367 09/13/2017 1337	**Regis# N812SM**	**Elbert, CO**	**Apt: Kelly Airpark CO15**
Acft Mk/Mdl MILLER STEVEN M RV6 A-A	**Acft SN 23302**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Prelim Prob Caus: Pending**
Eng Mk/Mdl LYCOMING O-360-A1A	**Acft TT 1185**	**Fatal 0 Ser Inj 2**	**Flt Conducted Under: FAR 091**
Opr Name: GROSS CARL W	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPE

Events

1. Landing - Loss of control on ground

Narrative

On September 13, 2017, about 1337 mountain daylight time, a Vans RV-6 experimental airplane, N812SM, registered to the pilot, sustained substantial damage when it impacted the ground following a loos of control during an attempted go-around at Kelly Airpark (CO15), Elbert, Colorado. The pilot and one passenger sustained serious injuries. Visual meteorological conditions prevailed and a flight plan was not filed. The personal flight was being conducted under the provisions of Federal Code of Regulations Part 91. The flight originated at 1300 from the La Junta Municipal Airport (LHX), La Junta, Colorado, and CO15 was its destination.

The pilot stated that he was 5 miles south of CO15 and called the AWOS via radio. He stated that the AWOS reported wind from 280 degrees at 24 knots with gusts of 32 knots. He called AWOS again while entering the VFR base leg for runway 27 and the reported wind again was from 280 degrees with gusts of 32 knots. Upon turning to final, the pilot felt the strong wind and added power to stay higher than a normal approach. With flaps set to 40 degrees, the pilot decreased power and started to flare. He stated that the wheels hit hard and the airplane bounced, and a gust of wind moved the airplane to the south off the runway. After another bounce, the pilot added power and attempted a go-around. The airplane struck a cistern to the left of the runway, a fence, and came to rest inverted.

Two witnesses stated that there were very strong wind gusts at the time of the accident.

The nearest weather reporting facility was located about two miles from the accident site. The METAR at 1329 (seven minutes prior to the accident) reported wind from 280 degrees at 21 knots with gusts of 25 knots.

Accident Rpt# GAA18CA054 11/19/2017 1430 PST	**Regis# N7712**	**Point Mugu, CA**	**Apt: N/a**
Acft Mk/Mdl QUICKSILVER MXL SPORT-NO SERIES	**Acft SN 4606220**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 503	**Acft TT 672**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: LORIN C. HENRY	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPX

Events

1. Maneuvering-low-alt flying - Miscellaneous/other

Narrative

The pilot reported that, while following a friend performing an instructional flight, the other aircraft motioned to indicate that the student pilot had taken the flight controls, so he "broke away to the right". He added that he began a descent in an area of known power wires and "in [his] mind's eye, [he] had already [passed] the second of 2 sets" of power wires. He added that the airplane struck the power wires "at eye level" and then impacted terrain.

The airplane sustained substantial damage to the fuselage.

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

Accident Rpt# WPR16FA154 08/01/2016 1100 PDT	**Regis# N528HZ**	**The Dalles, OR**	**Apt: Columbia Gorge Rgnl/the Dalles DLS**
Acft Mk/Mdl SPERLING RICHARD G LANCAIR 360-NO	**Acft SN 553-320-300**	**Acft Dmg: DESTROYED**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl LYCOMING IO-360-C1C		**Fatal 1 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: SPERLING RICHARD G	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: STN

Summary

The private pilot was landing the airplane on runway 31 in visual meteorological conditions when witnesses observed the airplane in a nose-low, steep-left-bank attitude west of the runway over grassy terrain. A second later, the airplane impacted the terrain. An examination of the accident site revealed propeller slash marks about 1,800 ft from the approach end of runway 31. The initial point of a 200-foot-long debris path was located 385 ft from the slash marks on a 235ø magnetic heading, and the airplane came to rest upright at the end of the debris path with its nose oriented northeast.

During the wreckage recovery, both main and the nose landing gear were found in a retracted position. During the postaccident examination, the throttle, mixture and propeller control levers were observed positioned full forward. The left and right main landing gear doors and the fuselage bottom skin exhibited numerous scratches and paint transfer consistent with the airplane's lower surface contacting the runway with the landing gear retracted. Both propeller blade tips were bent and curled aft, and the blades displayed numerous span-wise scratches from about mid span to the blade tips consistent with the propeller blades contacting the runway. The examination revealed no evidence of any preimpact mechanical failures or anomalies that would have precluded normal operation.

It is likely that, during the landing sequence, the pilot realized that the landing gear was retracted and aborted the landing by adding full power. During the aborted landing, the pilot did not maintain control of the airplane, which rolled to the left and impacted terrain.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's loss of control during an aborted landing. Contributing to the accident was the pilot's failure to extend the landing gear before touchdown.

Events

1. Landing - Landing gear not configured
2. Approach-VFR go-around - Loss of control in flight

Findings - Cause/Factor

1. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
2. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Lateral/bank control-Not attained/maintained - C
3. Personnel issues-Action/decision-Action-Forgotten action/omission-Pilot - F
4. Aircraft-Aircraft systems-Landing gear system-Main landing gear-Not used/operated - F

Narrative

HISTORY OF FLIGHT

On August 1, 2016, about 1100 Pacific daylight time, an experimental amateur-built Lancair 360, N528HZ, impacted terrain while landing on runway 31 at Columbia Gorge Regional/The Dalles Municipal Airport (DLS), The Dalles, Oregon. The pilot was fatally injured, and the airplane was destroyed. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed, and no flight plan was filed. The local flight originated from DLS about 1030.

Two witnesses, located on the ramp adjacent to the refueling area, observed the airplane west of the runway in a nose-low, steep-left-bank attitude with the left wing pointed directly towards the ground. A second later, the airplane impacted the terrain. One witness reported that, following the impact, the airplane cartwheeled and slid on its belly before it came to rest.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with airplane single-engine and multi-engine land ratings. He held a third-class airman medical certificate issued on April 28, 2014, with the limitation that he must have available glasses for near vision. At the time of his last medical exam, the pilot reported flight experience that included 1,860 total hours and 104 hours in the last 6 months.

AIRCRAFT INFORMATION

The two-seat, single-engine, low-wing, retractable landing gear airplane was manufactured by the pilot in 2014. It was powered by an experimental Textron Lycoming IO-360-C1C engine, rated at 240 horsepower. The airplane was equipped with a Hartzell two-bladed variable-pitch propeller, model HC-E2YR-1BF/F7068-2. A review of available maintenance records showed that the engine was disassembled and inspected on March 4, 2014, due to low oil pressure. The engine was subsequently rebuilt and installed on the accident airplane at an undetermined date. The airframe records were not available to investigators during the investigation.

METEOROLOGICAL CONDITIONS

At 0953, the weather conditions at DLS included wind from 340ø at 10 knots, 10 miles visibility, temperature of 21øC, dew point temperature of 11øC, and an altimeter setting of 30.02 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

A Federal Aviation Administration (FAA) inspector examined the accident site and the surrounding area. The examination revealed 6 equally-spaced propeller slash marks on runway 31 about 1,800 ft from the approach end. A ground scar and a part of the left-wing tip were observed in a grassy area located 385 ft from the propeller marks on a heading of about 296o magnetic. The airplane wreckage debris path was about 200 ft in length on a heading of about 235o magnetic. The airplane came to rest upright with its nose oriented northeast.

The left wing and its respective carry-through structure had separated from the fuselage, and parts were dispersed along the debris path. All airframe components were found with the main wreckage along with all flight control surfaces, which had remained attached to their respective hinges. Flight control continuity was established from the cockpit controls to all primary flight control surfaces. Multiple separations were observed in various control cables, consistent with impact.

During the wreckage recovery, the FAA inspector observed that both main and the nose landing gear were in a retracted position. The left and right main landing gear doors and the fuselage bottom skin exhibited numerous scratches and paint transfer consistent with the airplane's lower surface contacting the runway with the landing gear retracted. No evidence of pre-impact anomalies was found with the landing gear system.

The two-bladed propeller assembly remained attached to the crankshaft's propeller flange. Both blade tips were bent and curled aft, and the blades displayed numerous span-wise scratches from about mid span to the blade tips consistent with the propeller blades contacting the runway.

The engine remained attached to the airframe, and the engine mounts were intact. All engine accessories remained attached to the engine. The air filter remained attached to its bracket and exhibited signs of impact damage. The fuel pump and the fuel lines remained attached to the engine and to their respective cylinders. The fuel selector handle was found in the "RIGHT" tank position. Fuel was present in the airplane; however, the fuel quantity was not determined. The needle on the fuel gauge indicated 1/2.

The top sparkplugs were removed from their respective cylinders and exhibited signatures consistent with normal operation. The electrode areas displayed no mechanical deformation. A compression test was conducted and cylinder Nos.1, 3 and, 4 produced compression and suction during the propeller rotation. The No. 2 cylinder did not produce any compression or suction due to impact damage. The throttle and mixture controls remained attached to their respective cockpit controls and their control levers. The throttle, mixture, and propeller control levers were positioned full forward.

The examination revealed no evidence of preimpact mechanical malfunction that would have precluded normal operations.

The complete accident site summary and the examination report are available in the public docket for this accident.

MEDICAL AND PATHOLOGICAL INFORMATION

Klickitat County Coroner's Office, Goldendale, Washington, completed an autopsy on the pilot and concluded that the cause of death was blunt force injuries. The FAA's Bioaeronautical Sciences Research Laboratory in Oklahoma City, Oklahoma, performed toxicology on specimens from the pilot. No ethanol was

present in urine; ketamine was detected in urine and blood. Ketamine is an injectable, rapidly acting general anesthetic agent that was administered during the pilot's postaccident transport to the hospital.

Accident Rpt# GAA18CA002 10/05/2017 1750 PDT	**Regis# N2918A**	**Camarillo, CA**	**Apt: Camarillo CMA**	
Acft Mk/Mdl ULTRALIGHT AMERICA SPITFIRE II-NO	**Acft SN 19661978**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl ROTAX 670		**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name: STEVEN R. LAWRENCE	**Opr dba:**		**Aircraft Fire: NONE**	
			AW Cert: SPX	

Summary

The pilot reported that, during a familiarization flight, he took off and "noticed a strong left turning tendency." He added that he "kept the power at a higher, time restricted setting," which resulted in the coolant temperature rising above the 180øF maximum operating temperature.

Although there were no indications of performance degradation, he "became concerned" that the airplane could lose engine power due to overheating and decided to make a precautionary landing. During the landing, the airplane bounced, and he decided to go around. Subsequently, the airplane struck a hangar roof about 75 ft left of the runway centerline and then came to rest on the opposite side of the hangar.

The airplane sustained substantial damage to both wings and the fuselage.

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

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's failure to track the runway centerline during an attempted go-around, which resulted in impact with a hangar.

Events

1. Approach-VFR go-around - Loss of control in flight
2. Approach-VFR go-around - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
2. Personnel issues-Action/decision-Action-Incorrect action performance-Pilot - C
3. Environmental issues-Physical environment-Object/animal/substance-Airport structure-Effect on operation - C

Narrative

The pilot reported that, during a familiarization flight, he took off and "noticed a strong left turning tendency." He added that, he "kept the power at a higher, time restricted setting", which resulted in the coolant temperature rising above the 180ø F maximum operating temperature.

Although there were no indications of performance degradation, he "became concerned" that he could lose engine power due to overheating, and decided to make a precautionary landing. During the landing, the airplane bounced, and he decided to go-around. Subsequently, the airplane struck a hangar roof approximately 75' to the left of the runway centerline and came to rest on the opposite side of the hangar.

The airplane sustained substantial damage to both wings and the fuselage.

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

Accident Rpt# CEN17CA371	**09/29/2017 1230 CDT**	**Regis# N712RL**	**Itasca, TX**	**Apt: N/a**
Acft Mk/Mdl VANS RV7-A		**Acft SN 71000**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl LYCOMING O-360A1A		**Acft TT 997**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: CSM AVIATION LLC		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Summary

The pilot reported that, during his preflight inspection, he perceived that both fuel tanks were full. Based on previous flights, full fuel tanks allowed for about 5 hours of flight endurance. About 4 hours after departure, the pilot noticed a low fuel quantity on the cockpit gauges but continued the flight toward the planned destination airport. Several minutes later, the engine lost power, and the pilot performed a forced landing to a field. The airplane impacted a power line and nosed over, which resulted in substantial damage to the right wing and fuselage.

Postaccident examination of the airplane revealed that the fuel tanks contained no usable fuel. Following the accident, the pilot stated he should have landed earlier to refuel. He also discovered that a co-owner had not filled the fuel tanks after the previous flight, as he had expected.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's inadequate preflight planning and improper in-flight decision-making, which resulted in a total loss of engine power due to fuel exhaustion.

Events

1. Enroute-cruise - Fuel exhaustion
2. Enroute-cruise - Loss of engine power (total)
3. Approach - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Personnel issues-Task performance-Planning/preparation-Fuel planning-Pilot - C
2. Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - C
3. Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid level - C
4. Environmental issues-Physical environment-Object/animal/substance-Wire-Contributed to outcome

Narrative

The pilot reported that during his preflight inspection, he perceived both fuel tanks were full. Based on previous flights, full fuel tanks allowed for about five hours of endurance. About four hours after departure, the pilot noticed a low fuel quantity on cockpit gages, but continued the flight toward the planned destination airport. Several minutes later, the engine lost power and the pilot performed a forced landing to a field. The airplane impacted a power line and nosed-over, resulting in substantial damage to the right wing and fuselage.

Postaccident examination revealed the airplane fuel tanks contained no useable fuel. Following the accident, the pilot stated he should have landed earlier to refuel. He also discovered that a co-owner had not filled the fuel tanks after the previous flight, as he expected.

Accident Rpt# GAA18CA069 12/02/2017 1650 CST	**Regis# N912GR**	**Plato Center, IL**	**Apt: Olson LL53**
Acft Mk/Mdl WEAVER DAVID A PULSAR 912XP-NO	**Acft SN 329**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912UL	**Acft TT 542**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: WEAVER, DAVID A.	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPE

Events

3. Approach-VFR pattern final - Controlled flight into terr/obj (CFIT)

Narrative

The pilot reported that, while making a straight-in approach to a private airport just after dusk, but before dark, he attempted to activate the pilot controlled lighting (PCL), but was unsuccessful. He added that he continued toward the airport, and while maneuvering for landing he lost sight of the airport. The pilot did not regain visual reference of the airport during the landing descent, and the airplane impacted a fence adjacent to the runway.

The airplane sustained substantial damage to the fuselage.

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

The airport owner reported that the PCL antenna requires line-of-sight with the aircraft to operate the PCL system. Presently, due to the antenna's position and hangars on the airport, the antenna does not receive signals from the southeast, the direction from which the accident airplane was approaching. He added that, since the airport was private, he could not issue Notices to Airmen (NOTAMs) to describe the operation of the runway lights.