Accident Rpt# ERA17LA337	**09/15/2017 1543 EDT**	**Regis# N885PR**	**New Fairfield, CT**	**Apt: Lake NONE**	
Acft Mk/Mdl AIRMAX CONSTRUCOES AERONAUTICA		**Acft SN 113**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Prelim**	**Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912			**Fatal 0** **Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name:		**Opr dba:**		**Aircraft Fire: NONE**	
				AW Cert: LTSP	

Events

1. Landing-landing roll - Unknown or undetermined

Narrative

On September 15, 2017, about 1543 eastern daylight time, an Airmax Construccoes Aeronautica Seamax-M22, N885PR, was substantially damaged after a water landing in Candlewood Lake near New Fairfield, Connecticut. The private pilot and passenger were uninjured. The airplane was operated by Waterbird Holding, LLC as a personal flight. Visual meteorological conditions prevailed, and no flight plan was filed for the flight that departed Francis S Gabreski Airport (FOK), Westhampton Beach, New York. The flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

During a normal water landing at the intended destination, the airplane took on water and sunk into the lake. Upon retrieval of the airplane, a 9-inch gouge was discovered on the underside of the forward fuselage, below the water line. A Federal Aviation Administration inspector confirmed the substantial damage, and noted that pine tree debris were embedded in the aft portion of the damaged area. The pilot stated that he did not feel any impact during the landing.

Accident Rpt# WPR16FA012 10/14/2015 1510	**Regis# N1940J**	**Missoula, MT**	**Apt: Missoula Intl MSO**
Acft Mk/Mdl BUCKER JUNGMEISTER BU 133-C	**Acft SN 22**	**Acft Dmg: DESTROYED**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl WARNER AIRCRAFT ENGINES 1650	**Acft TT 2039**	**Fatal 1 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: PATRICK CARTER	**Opr dba:**		**Aircraft Fire: GRD**
			AW Cert: SPE

Events

1. Initial climb - Loss of control in flight

Narrative

HISTORY OF FLIGHT

On October 14, 2015, at 1510 mountain daylight time, a Bucker Jungmeister BU 133/C, airplane N1940J, crashed in a parking lot during the initial takeoff climb at the Missoula International Airport (MSO), Missoula, Montana. The pilot was fatally injured. The airplane was destroyed. The airplane was owned by the pilot, who operated the airplane under 14 Code of Federal Regulations Part 91 as a personal cross-country flight. Visual meteorological conditions prevailed for the flight that was destined for Alabama. No flight plan had been filed.

The pilot purchased the World War II-era single-seat biplane the day before the accident. According to the former mechanic for the airplane, on the day of the accident, the previous owner contacted him to let him know that the airplane had been sold and that the new owner/pilot was having a problem with fuel running into the cockpit. The former owner asked the mechanic if he could call the pilot. The mechanic called the pilot and left a message. When the pilot called him back, the pilot stated that he had refueled at the Dalles, Oregon, airport. After takeoff, when the pilot lowered the nose, he was getting fuel on the floor and down the tubing on the side of the cockpit. He shut off all the electrical power and continued the flight; after a while, the problem went away. The pilot also experienced the same scenario when he refueled in Coeur d'Alene, Idaho. The mechanic told the pilot that it sounded like the fuel tank was not venting properly and that it was forcing out fuel until air could get into the tank. The pilot said that someone at the airport in Missoula was helping him inspect the fuel system, but they were not able to find anything wrong. The mechanic suggested that the pilot ask them to check the vent system. The pilot told the mechanic that he was going to call the tower and leave Missoula with all electrical power off. The mechanic suggested to the pilot that he not fly the airplane until the problem was fixed. The pilot reported that he had to get to Alabama, or as far east as he could by October 16. The mechanic stated that they spoke for about 10 minutes, and he found out later that the pilot had crashed about 20 minutes after they had spoken.

Witnesses located at Northstar Jet, the fixed base operator (FBO) at MSO where the pilot obtained fuel, reported that they had very little interaction with the pilot. The line crew employee reported that the pilot pumped his own fuel and spilled some fuel during the fueling process. The airplane was fueled with 14 gallons of fuel. None of the Northstar Jet personnel reported helping the pilot inspect the fuel system or seeing the pilot or anyone else perform such inspection.

Several witnesses saw the airplane takeoff. A mechanic at another FBO stated that during takeoff from runway 25, the airplane appeared to have plenty of power and sounded good. Once airborne, the airplane made a hard-right turn with the bank angle increasing. A second witness at the same FBO stated that the airplane made a steep right bank and began to descend.

A third witness reported that the airplane climbed quickly after rotation, and made an immediate right turn; the rate of climb decreased, and the airplane began to sink as it continued to turn right. After turning about 180ø, the airplane "suddenly rolled about 90ø to the right as the wing stalled." The airplane entered a spin and descended "almost straight down," to impact in the rental car lot at the airline terminal. Upon impact, a fire erupted.

Another witness stated that he was on the west end of the airport when he saw the airplane about 80 ft above ground level (agl) enter a hard-right turn, then the airplane descended and impacted the ground. According to this witness, the engine sounded like it was "powering up." A witness at the eastern end of the rental car parking lot stated that the engine was running at the time the airplane impacted the ground.

PERSONNEL INFORMATION

No personal logbooks were made available to the National Transportation Safety Board (NTSB). A review of the pilot's Federal Aviation Administration (FAA) airman medical records on file at the Airman and Medical Records Center in Oklahoma City, Oklahoma, revealed that the pilot was issued a second-class medical certificate on June 4, 2015. He reported 11,200 total flight hours with 150 hours accrued in the past 6 months.

AIRCRAFT INFORMATION

The last maintenance performed on the airplane was an annual inspection completed on June 12, 2015, at an airplane total time of 2,038.9 hours. The airplane was powered by a radial piston Warner Aircraft Engines Scarab 165, serial number 2031A; at the time of the annual inspection, the engine total time was recorded as 909.4 hours, with 32.7 hours since major overhaul.

METEOROLOGICAL INFORMATION

AIRPORT INFORMATION

WRECKAGE AND IMPACT INFORMATION

Investigators from the NTSB and an inspector from the FAA responded to the accident site. The entire airplane came to rest in the long-term parking lot on airport property, and most of the airplane was consumed by the postcrash fire.

MEDICAL AND PATHOLOGICAL INFORMATION

The Montana Department of Justice Forensic Science Division, Missoula, Montana, conducted a post mortem examination on the pilot. The cause of death was listed as blunt force trauma with thermal injuries and smoke inhalation.

The FAA Bioaeronautical Sciences Research Laboratory in Oklahoma City, Oklahoma, performed forensic toxicology on specimens from the pilot. The results were negative for cyanide, ethanol, and drugs of abuse. The results were positive for carbon monoxide, which was detected at 10% in heart blood.

TEST AND RESEARCH

According to Northstar Jet personnel, two of their company airplanes had refueled before the accident airplane via the same truck that had fueled the accident. The two airplanes and the fuel truck were taken out of service, and the fuel was tested with no discrepancies noted.

A visual engine examination revealed no obvious mechanical problems. The engine could not be manually rotated because of engine displacement due to impact forces. The number three cylinder had separated from the crankcase and exposed the inside of the engine. The engine accessory components had sustained fire damage. Both the left and right magneto remained attached at their respective mounting pads. The left magneto was manually rotated and spark was observed at the ignition leads. The right magneto had sustained fire and impact damage, and the magneto was disassembled with no mechanical malfunctions noted.

The fuel system was subjected to and compromised by the postcrash fire. The fuel selector was removed from the airframe, and upon visual examination, no obvious mechanical deficiencies were noted. Compressed air was blown into each of its selector positions, 1,2, and both; no air escaped from the openings. The fuel selector was then manually moved through each of its positions, compressed air was blown into each position, and air was noted to come out of each fuel selector position.

Accident Rpt# ERA17LA341	**09/28/2017 1700 CDT**	**Regis# N552ES**	**Huntsville, AL**	**Apt: Huntsville Executive Airport MDQ**
Acft Mk/Mdl CESSNA 162		**Acft SN 16200234**	**Acft Dmg: UNK**	**Rpt Status: Prelim Prob Caus: Pending**
Eng Mk/Mdl CONTINENTAL O-200-D		**Acft TT 657**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: JOE MCKAY		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: LTSP

Events

2. Approach - Loss of engine power (total)

Narrative

On September 28, 2017, about 1700 central daylight time, a Cessna 162, N552ES, was substantially damaged during a forced landing following a total loss of engine power near Huntsville, Alabama. The flight instructor and student pilot were not injured. The 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 local flight that departed Huntsville Executive Airport (MDQ), Huntsville, Alabama.

The flight instructor stated the preflight inspection, engine start, taxi, and takeoff were normal. After an uneventful 20-minute flight, they were returning to MDQ and began an 80-knot descent from 3,000 ft mean sea level (msl) to traffic pattern altitude. When the student pilot added power to level the airplane about 1,400 ft msl, "the engine died instantly." The flight instructor took the controls and pumped the throttle which resulted in a brief surge of engine power. He subsequently made a forced landing to a field; after touchdown the airplane impacted trees.

The two-seat, high-wing airplane was manufactured in 2013 and was equipped with a Continental Motors O-200 series, 100 horsepower reciprocating engine. Its most recent 100-hour inspection was completed November 4, 2016.

The pilot held airline transport pilot and flight instructor certificates, with ratings for airplane single and multiengine land, rotorcraft/helicopter, and glider. He reported 3,300 hours of total flight experience on his most recent application for a Federal Aviation Administration (FAA) third-class medical certificate, which was issued on June 23, 2017.

Examination of the airplane by an FAA inspector revealed substantial damage to the left wing and aileron, right wingtip, and fuselage. The airframe fuel strainer, wing tank sumps, and engine fuel system components were absent of water, debris, or contamination, and contained fluid consistent with 100LL aviation fuel. The FAA inspector attempted an engine start on the airframe utilizing the airplane's own battery and fuel system. The engine started, and ran continuously at multiple power settings without interruption.

At 1635, the weather reported at MDQ, about 2 miles south of the accident site, included wind from 100ø at 7 knots, visibility 10 statute miles; clear skies; temperature 28ø C, dew point 15ø C, and altimeter 29.98 inches of mercury.

Accident Rpt# GAA17CA227 **03/18/2017 803 PDT** **Regis# N153JM** **Borrego Springs, CA** **Apt: N/a**

Acft Mk/Mdl CUBCRAFTERS INC CC11-160-NO SERIES **Acft SN CC11-00153** **Acft Dmg: SUBSTANTIAL** **Rpt Status: Factual** **Prob Caus: Pending**

Eng Mk/Mdl CUB CRAFTERS INC CC340 **Acft TT 306** **Fatal 0** **Ser Inj 0** **Flt Conducted Under: FAR 091**

Opr Name: SEGEL DAVID S **Opr dba:** **Aircraft Fire: NONE**

AW Cert: SPX

Summary

The private pilot reported that he landed off airport to an unimproved surface. He remarked that the "airplane only needs about 60 feet of ground roll to become airborne." During the attempted takeoff, the airplane ascended about 2 ft above ground level before the landing gear wheel impacted desert shrubs, and the pilot aborted the takeoff. The airplane touched down and developed a side load, and the right main landing gear collapsed. The airplane sustained substantial damage to the lower fuselage tube struts and the firewall. ÿ

The pilot reported that there were no preaccident mechanical malfunctions or failures 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 selection of an unsuitable takeoff area, which resulted in impact with obstacles.

Events

1. Takeoff - Collision during takeoff/land
2. Takeoff-rejected takeoff - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - C
2. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Altitude-Not attained/maintained - C
3. Environmental issues-Physical environment-Object/animal/substance-(general)-Effect on operation - C
4. Environmental issues-Physical environment-Terrain-(general)-Decision related to condition - C

Narrative

The private pilot reported that he landed off airport to an unimproved surface. He remarked that the, "airplane only needs about 60 feet of ground roll to become airborne." During the attempted takeoff the airplane ascended about 2 ft. above ground level before the landing gear wheel impacted desert shrubs and the pilot aborted the takeoff. The airplane touched down and developed a side load and the right main landing gear collapsed. The airplane sustained substantial damage to the lower fuselage tube struts and the firewall.

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

Accident Rpt# ERA16LA120 02/28/2016 1337 EST	**Regis# N187SF**	**Atlanta, GA**	**Apt: Dekalb-peachtree PDK**	
Acft Mk/Mdl CZECH AIRCRAFT WORKS SPOL SRO	**Acft SN 08SC190**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912ULS	**Acft TT 1935**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name: ASMAN SANFORD JAY	**Opr dba:**		**Aircraft Fire: NONE**	
			AW Cert: LTSP	

Summary

The private pilot said he performed a preflight inspection of the airplane and let the engine warm up to normal operating temperature before he taxied to the runway and performed a normal run-up of the engine. During takeoff, the engine lost power. The pilot attempted to return and land on the reciprocal runway but landed about 300 ft southeast of the runway on grass. The landing gear collapsed during the landing, which resulted in substantial damage to the airframe. Engine performance data downloaded from the airplane's onboard electronic display revealed that the fuel flow to the engine was interrupted shortly before the end of the flight. A postaccident examination of the engine revealed no mechanical anomalies that would have precluded normal operation, and during a test run of the engine on the airframe, it ran continuously for several minutes without hesitation. Examination of the fuel system revealed that no fuel return line (or fuel restriction line) had been installed, which was not in accordance with the engine manufacturer's installation instructions. The engine installation manual stated that the purpose of the fuel return line was to prevent the formation of fuel vapor lock. It is likely that the absence of the fuel return line resulted in the engine losing power due to fuel vapor lock.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: A total loss of engine power due to fuel vapor lock. Contributing to the accident was the absence of a fuel return line.

Events

1. Takeoff - Loss of engine power (total)
2. Emergency descent - Off-field or emergency landing

Findings - Cause/Factor

1. Aircraft-Aircraft power plant-Engine (reciprocating)-(general)-Failure - C
2. Aircraft-Fluids/misc hardware-Misc hardware-(general)-Not installed/available - C
3. Environmental issues-Physical environment-Runway/land/takeoff/taxi surface-Soft surface-Contributed to outcome

Narrative

On February 28, 2016, at 1337 eastern standard time, N187SF, Czech Aircraft Works SPOL SRO - SportsCruiser, made a forced landing after a total loss of engine power while on takeoff from DeKalb-Peachtree Airport (PDK), Atlanta, Georgia. The airplane sustained substantial damage, but the private pilot/owner was not injured. Visual meteorological conditions existed at the time of the accident and no flight plan was filed for the flight that was being conducted as a 14 Code of Federal Regulations Part 91 personal flight. The flight was originating at the time of the accident.

The pilot stated that this was his first flight of the day. He conducted a thorough preflight inspection of the airplane before he started the engine. He then let the engine warm up to normal operating temperature before taxing to the runway. The pilot said he performed an engine run-up and everything was normal. Both fuel tanks were full with about 15 gallons of auto-gas, and the fuel selector was on the left tank. The fuel pump was "on." During the takeoff from runway 21R, the engine lost power. He switched fuel tanks, but the engine did not re-start. The pilot declared an emergency and attempted to land on runway 3R, but landed about 300 ft southeast of the runway on grass. The landing gear collapsed on landing and the airplane slid and spun 180ø before it came to rest.

The airplane was equipped with a Dynon Skyview display. Engine performance data downloaded from the unit revealed an interruption in fuel flow to the engine during the short flight, about 12.5 minutes after the data recording began, and about 2 minutes before the data recording ceased.

A postaccident examination of the airplane and engine revealed the fuselage, both wings, the firewall, and an engine mount were substantially damaged. The Rotax 912 ULS engine remained attached to the airframe and two of the three propeller blades were broken off at the hub. Both carburetors were displaced from their respective sockets and the gascolator bowl was shifted from its mounting bracket. The float bowls were removed from each carburetor and inspected. A small amount of fuel was observed in each bowl along with a small amount of contamination that was consistent with a small particle of fuel line. No mechanical anomalies were noted with either carburetor and the float bowls were re-installed on the engine. The spark plugs were removed from the engine and a continuity and compression check were completed via manual rotation of the propeller. No mechanical issues were noted. The engine was then prepped to be test run, which involved cutting the remaining propeller blade and removing the fuel pump inlet line from the firewall and placing it in a fuel container with fresh fuel. The engine was started and run to 5,700 RPM (5,800 RPM was max). Fuel pressure was 5.8 PSI, which is in the normal pressure range. The engine ran continuously for several minutes without hesitation. No mechanical deficiencies were observed with the engine that would have precluded normal operation

at the time of impact.

Examination of the airplane's fuel system revealed that the airplane did not have a mandatory fuel return line installed as per the Rotax 912ULS installation instructions. The fuel return line was made mandatory via an amendment to the installation manual on August 1, 2012. The manual stated on page 3, section 73-00-00, subsection 1.1) Description of system - Return Line, "NOTE: The return line prevents malfunctions caused by the formation of vapor lock." Additionally, page 6, Section 73-00-00, subsection 1.3 of the manual stated, "Requirements of the fuel system - Fuel return line, NOTICE: The installation of a fuel return line is mandatory. If the fuel distributor piece with regulator from Rotax is not available, the fuel pressure must be regulated by a restriction in the fuel return line, which ensures that the fuel pressure is under all operation condition within the operating limits specified by Rotax." No fuel return line or restrictor regulator was installed on this airplane as per the Rotax installation instructions.

The accident engine was manufactured in January 2012 and was not the original engine installed on the airplane. A review of maintenance logs revealed the engine was installed on the accident airplane by a repair station in December 2013. The pilot/owner purchased the airplane with the new Rotax 912ULS engine already installed in 2014. He was unaware that the mandatory fuel return line was not installed.

The Airframe Maintenance Manual (AMM) depicted the airplane's fuel system design layout with a fuel return line installed. However, the accident airplane was manufactured in 2008 and based on the information provided by the airframe manufacturer, no Czech SportCruiser airplane manufactured prior to 2010 had a fuel return line installed. The fuel line was only made mandatory by the engine manufacturer, Rotax, if their Rotax 912ULS engine was installed after August 1, 2012. The airframe manufacturer made the fuel return line standard in September 2010 as the design modification no. S - K - 0084 and a change to the AMM Revision 6, for the SportCruiser in January 2011. According to the airframe manufacturer, 94 airplanes were manufactured for the US market without a fuel return line. Prior to the design modification, there were no reports of any engine problems or shutdowns.

The pilot held a private pilot certificate for airplane single-engine land and instrument airplane. His last FAA third-class medical was issued on July 24, 2014. The pilot reported a total of 1,117 flight hours, of which, 56 hours were in the same make/model as the accident airplane.

At 1255, the weather reported at the airport was visibility 10 miles, wind 210ø at 10 knots gusting to 20 knots, and clear skies.

Accident Rpt# GAA17CA261 05/05/2017 720 EDT	**Regis# N228KM**	**Arecibo, PR**	**Apt: Antonio (nery) Juarbe Pol Airp ABO**
Acft Mk/Mdl QUICKSILVER MANUFACTURING INC	**Acft SN 0142**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 582 UL	**Acft TT 361**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: WALDEMAR MOJICA	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPX

Summary

The pilot in the weight-shift-controlled aircraft reported that he was performing a maintenance flight about 40 ft above ground level. He recalled that he remained in the pattern and that he was in a level flight profile when the left wing struck a tree.ÿThe aircraft fell to the ground and sustained substantial damage to the left wing strut and trailing edge tubes.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the weight-shift-controlled aircraft 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 see and avoid trees during low-altitude flight.

Events

1. Enroute - Controlled flight into terr/obj (CFIT)
2. Uncontrolled descent - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Altitude-Not attained/maintained - C
2. Environmental issues-Physical environment-Object/animal/substance-Tree(s)-Effect on equipment - C
3. Personnel issues-Psychological-Attention/monitoring-Monitoring environment-Pilot - C

Narrative

The pilot in the weight-shift-controlled aircraft reported that he was performing a maintenance flight about 40 ft. above ground level. He recalled that he remained in the pattern and he was in a level flight profile when the left wing struck a tree. The aircraft fell to the ground and sustained substantial damage to the left wing strut and trailing edge tubes.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the weight-shift-controlled aircraft that would have precluded normal operation.

Accident Rpt# GAA17CA488	**08/12/2017 1100 CDT**	**Regis# N8262**	**Bowling Green, KY**	**Apt: Bowling Green-warren County Rg BWG**
Acft Mk/Mdl CHARLES D WALKER WALKER CURTISS		**Acft SN WC001**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
		Acft TT 330	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: CHARLES D. WALKER		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

1. Initial climb - Loss of control in flight

Narrative

The pilot of the experimental, amateur-built, biplane reported that, following a normal initial climb, about 100 ft. above the ground, the biplane started an un-commanded turn to the left, followed by a descent. He added that, it became apparent that the flight path was into the tree line, and he "attempted to climb to possibly maintain at least an altitude to clear the trees, but to no avail, nearly stalling." Subsequently, the biplane impacted the trees.

The biplane sustained substantial damage to the wings and fuselage.

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

The pilot added that, the biplane is "not very stable once in a flying configuration, any air mass (gusts) change can disturb the balance and result in self-induced turns, climbs and descents. These movements have to be countered immediately because of the relative size (small) of control surfaces (rudder, ailerons). And corrections are slow, possibly resulting in loss of altitude. Pilots expect these upsets and become alert for them."

The automated weather observation system on the accident airport reported, about the time of the accident, the wind was 360ø at 5 knots. The pilot was departing on runway 03. The calculated density altitude was 1,897 ft.

Accident Rpt# GAA17CA208 03/25/2017 1530 EDT	**Regis# N978ER**	**Louisa, VA**		**Apt: Louisa County Airport/freeman LKU**
Acft Mk/Mdl DEMPSEY DANIEL M ZODIAC	**Acft SN 001**	**Acft Dmg: SUBSTANTIAL**		**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl DANIEL DEMPSEY CORVAIR CONVE	**Acft TT 45**	**Fatal 0**	**Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: DEMPSEY DANIEL M	**Opr dba:**			**Aircraft Fire: NONE**
				AW Cert: SPX

Summary

The private pilot in the light-sport, experimental airplane reported that the flight was conducted with the intent of burning off fuel because he planned to pick up a passenger. When the pilot entered the downwind traffic pattern, the engine stopped. The pilot reported that, "my mistake had been to not switch fuel tanks before the one I was on was sucked dry." The pilot switched the fuel selector to a full tank and attempted to restart the engine as he maneuvered to reach the runway. The airplane's airspeed was slow, and the airplane stalled. The airplane landed hard on the left side of the runway centerline and remained on the runway when it came to rest. The airplane sustained substantial damage to the firewall and the fuselage aft of the firewall. ÿ

The pilot reported that there were no preaccident mechanical malfunctions or failures 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 in-flight fuel mismanagement and subsequent failure to maintain adequate airspeed while attempting to land on the runway, which resulted in an aerodynamic stall and a hard landing.

Events

1. Approach-VFR pattern downwind - Fuel exhaustion
2. Landing-flare/touchdown - Hard landing

Findings - Cause/Factor

1. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
2. Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid management - C
3. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Airspeed-Not attained/maintained - C

Narrative

The private pilot in the light-sport-experimental airplane reported that the flight was conducted with the intent of burning off fuel, because he planned to pick up a passenger. When the pilot entered the downwind traffic pattern, the engine stopped. The pilot reported that, "my mistake had been to not switch fuel tanks before the one I was on was sucked dry." The pilot switched the fuel selector to a full tank and attempted to re-start the engine as he maneuvered to make the runway. He was unable to re-start the engine and he over shot the runway. The airplane's airspeed was slow and the airplane stalled. The airplane landed hard on the left side of the runway centerline and remained on the runway when it came to rest. The airplane sustained substantial damage to the firewall and the fuselage aft of the firewall.

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

Accident Rpt# CEN17LA001	**10/01/2016 1300 CDT**	**Regis# N157D**	**Jennings, LA**	**Apt: Jennings 3R7**
Acft Mk/Mdl DRAKE KITFOX SPEEDSTER		**Acft SN SGD007**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912UL		**Acft TT 734**	**Fatal 0 Ser Inj 1**	**Flt Conducted Under: FAR 091**
Opr Name: GAINES DAVID JR		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPX

Events

1. Takeoff - Loss of control in flight

Narrative

On October 1, 2016, at 1300 central daylight time, an experimental light sport, amateur-built Drake Kitfox Speedster, N157D, collided with the terrain following a loss of control after takeoff from the Jennings Airport (3R7), Jennings, Louisiana. The pilot received serious injuries. The airplane was substantially damaged. The airplane was registered to and operated by the private pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, which was not operated on a flight plan. The intended destination was Slaughter Airpark (SL77), Slaughter, Louisiana.

The pilot reported that he was the last airplane in a flight of four to takeoff. He stated he verified his altitude and airspeed, and retracted the flaps during the takeoff. He stated he checked the airspeed, lowered the nose of the airplane, and resumed the climb. The pilot reported the airplane rolled to the right, which he corrected, then the airplane "abruptly" rolled to the left. He was unable to correct the roll and the airplane descended to impact with the terrain. The pilot reported that there were no mechanical failures/malfunctions of the airplane.

A witness reported the airplane was airborne in a wings level, "very high" nose up attitude when he first saw it. He stated that after a few seconds the left wing dropped and the nose lowered. Shortly after that, the right wing dropped and the airplane nosed down even more until it impacted the terrain.

A video posted on YouTube by furley85 showed the airplane climbing out in a steep, nose-high attitude after takeoff. The airplane was a couple hundred feet above the grass airstrip when the left wing dropped and the nose lowered. The airplane rolled back through wings level then the right wing dropped and the airplane impacted the terrain. The airplane received substantial damage to the wings and fuselage.

Accident Rpt# GAA17CA435 07/22/2017 1200 CDT	**Regis# N91JG**	**Denison, TX**	**Apt: North Texas Rgnl/perrin Field GYI**
Acft Mk/Mdl GILBERT THOMAS JEFFREY LANCAIR	**Acft SN 090**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl LYCOMING O-235	**Acft TT 327**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: ERNEST R. GILES	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPE

Summary

The pilot of the experimental, amateur-built airplane reported that he was unfamiliar with the airplane and that, during a prepurchase flight, he was accompanied by an aircraft mechanic/pilot familiar with the airplane.

The mechanic, seated in the right seat, instructed him to anticipate adding right rudder when increasing power during takeoff. During takeoff, the pilot applied right rudder; however, he reported that, once full power was applied, the airplane continued to veer to the left. The pilot added that he and the mechanic verbally communicated that they "both were applying right rudder and simultaneous aileron."

The pilot then pulled the mixture control to shut off the engine; however, the airplane continued off the left side of the runway. The pilot heard a loud "pop," and the airplane then veered to the right, the landing gear collapsed, and the airplane came to rest off the right side of the runway.

The airplane sustained substantial damage to the fuselage and rudder.

The pilot reported that he believed a "mechanical" failure caused the airplane to not respond to inputs from the right rudder, right brake, and right aileron and that the left brake or bearing seized, causing enough friction to overcome the control inputs. The mechanic stated that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

According to the mechanic, the airplane was not equipped with rudder/brake pedals on the right side, and before the flight, the pilot had used the brakes effectively to taxi for takeoff. He further stated, "all brakes were in good shape, and everything was in good operational condition."

The automated weather observation system on the airport reported that, about the time of the accident, the wind was from 190ø at 7 knots. The pilot was departing on runway 17L.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's failure to maintain directional control during the takeoff roll.

Events

1. Takeoff - Loss of control on ground
2. Takeoff - Runway excursion
3. Takeoff - Landing gear collapse
4. Takeoff - Nose over/nose down

Findings - Cause/Factor

1. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Directional control-Not attained/maintained - C
2. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
3. Personnel issues-Experience/knowledge-Training-Initial instruct/training-Pilot

Narrative

The pilot of the experimental amateur-built airplane reported that, he was unfamiliar with the airplane, and that during a pre-purchase flight, he was accompanied by an aircraft mechanic/pilot familiar with the airplane.

The mechanic, seated in the right seat, instructed him to anticipate adding right rudder when increasing power during takeoff. During takeoff, the pilot applied right rudder; however, he reported that once full power was applied the airplane continued to veer to the left. The pilot added that, there was a verbal communication shared between the two pilots that they "both were applying right rudder and simultaneous aileron."

The pilot then pulled the mixture control to shutoff the engine, however, the airplane continued off the left side of the runway, he heard a loud "pop," the airplane then veered to the right, the landing gear collapsed, and the airplane came to rest off the right side of the runway.

The airplane sustained substantial damage to the fuselage and rudder.

The pilot reported that he believed there was a "mechanical" failure, causing the airplane to not respond to inputs from the right rudder, right brake, and right

aileron; and that the left brake or bearing seized causing enough friction to overcome the control inputs.

According to the mechanic, the airplane was not equipped with rudder/brake pedals on the right side, and that prior to the flight the pilot had used the brakes effectively to taxi for takeoff. He further stated, "all brakes were in good shape, and everything was in good operational condition."

The mechanic added 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, that about the time of the accident, the wind was 190ø at 7 knots. The pilot was departing on runway 17L.

Accident Rpt# ERA16LA014	**10/14/2015 1445 CDT**	**Regis# N4931M**	**Eufala, AL**	**Apt: Weedon Field EUF**
Acft Mk/Mdl GROSS MICHAEL E STOL CH 701		**Acft SN 7-4931**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912UL		**Acft TT 738**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: KARL PAUBEL		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

1. Initial climb - Loss of control in flight

Narrative

On October 14, 2015, about 1445 central daylight time, an experimental amateur-built Zenith STOL CH701, N4931M, was substantially damaged shortly after taking off from Weedon Field (EUF), Eufala, Alabama. The private pilot was not injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the flight to Eu-Wish Airport (MU68), Hermann, Missouri. The personal flight was operating under the provisions of 14 Code of Federal Regulations Part 91.

After the accident, the pilot was granted permission by the NTSB investigator in charge to transport the airplane to his home in Missouri, being advised that additional information would be requested. The pilot subsequently failed to respond to any NTSB information requests, either directly or through his attorney. The investigation could thus only rely on the information gathered onsite by the responding Federal Aviation Administration (FAA) inspector, and on a written statement from the pilot subsequently provided through his attorney to the FAA inspector.

According to the pilot, he had purchased the airplane the day before in Florida, and was flying it home to Missouri, stopping at EUF to refuel. After refueling, the engine would not start, and the battery discharged. After charging the battery, the engine started "normally."

In a written statement the day of the accident, the pilot stated that after takeoff, about 50 feet above the runway, the airplane "turned left and did not respond to any control inputs to trim right and stay over the runway. Instead, it continued a left bank and impacted the ground."

In a later statement, the pilot stated that he had performed an engine run-up at 4,000 rpm without noting any anomalies. After which, he taxied to south end of runway 36 and commenced the takeoff. After applying full power, the airplane took longer than normal to take off due to crosswind conditions. About 50 feet above the runway, at mid-field, the engine began to run roughly and vibrate, and was not producing full power. The pilot attempted to "smooth out" the engine by adjusting the throttle; there was no mixture control.

The pilot then attempted to land the airplane back on the runway, but in the process, it veered off the left side and flipped upside-down. The pilot egressed the airplane, and reached back in to turn off the fuel valve as the emergency vehicles arrived.

According to the responding FAA inspector, the airplane had been moved to a hangar prior to her arrival. There, she noted that one blade of the three-bladed composite propeller was broken off and one was cracked. There was no bending or twisting of the propeller blades. There was no dripping or splattering of oil on the engine cowling. No anomalies were noted within the engine compartment.

The fuel bowl on the left side of the engine was full, and both wing fuel tanks were full of fuel. The inspector also drained fuel from each of the two wing tanks, and the fuel sump on the underside of the fuselage, just aft the engine compartment, and all samples were "clear and clean."

The inspector noted no control binding to the elevator or rudder, and while checking for aileron binding (none noted), the pilot stated that the controls "got mushy."

The FAA inspector subsequently drove out along the runway to where the airplane was recovered, which was about 3,200 feet from the departure end of the 5,000-foot runway.

Weather, recorded at the airport 13 minutes after the accident, included clear skies and calm winds.

Accident Rpt# GAA18CA014	**10/14/2017 1345 PDT**	**Regis# N8432**	**Othello, WA**	**Apt: Othello Muni S70**
Acft Mk/Mdl HIMSL VINCENT S VANS		**Acft SN 80296**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Prelim** **Prob Caus: Pending**
			Fatal 0 **Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: HIMSL VINCENT S		**Opr dba:**		**Aircraft Fire: NONE**

Accident Rpt# GAA17CA517	**09/04/2017 1400**	**Regis# N682PS**	**Kanab, UT**	**Apt: Kanab Muni KNB**	
Acft Mk/Mdl JEFF JARDINE KITFOX S7 SUPERSPORT		**Acft SN KA12244242**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl ROTAX 912 ULS		**Acft TT 122**	**Fatal 0**	**Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: FRITZ, PAUL J.		**Opr dba:**			**Aircraft Fire: NONE**
					AW Cert: SPX

Events

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

Narrative

The pilot reported that after a local flight, during touchdown, the airplane veered to the left, and he applied full power to go around. He added that, the airplane became airborne, drifted to the left over brush, and then started to sink because the airplane "did not have enough airspeed to maintain flight." Subsequently, the airplane settled into the brush about 50 ft. left of the runway, where the left wing struck the ground and the airplane spun 180ø to a stop.

The left wing and aileron sustained substantial damage.

The pilot did not report that there were any preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

An automated weather observation station, about the time of the accident, 23 nautical miles southwest of the accident site, reported wind from 320ø at 12 knots, gusting 15 knots, temperature 100ø F (38ø C), dewpoint 41ø F (5ø C), and barometric setting of 30.15" Hg. The calculated density altitude was 8,352 ft. According to the Federal Aviation Administration density altitude Koch Chart, the airplane would had likely experienced a 72% decrease to the normal climb rate.

Accident Rpt# GAA17CA287 05/12/2017 1540 PDT	**Regis# N1111E**	**Austin, NV**	**Apt: Austin TMT**	
Acft Mk/Mdl JOHNSON KENNETH W SUPER CUB	**Acft SN 471C**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl LYCOMING O-323-B2B	**Acft TT 778**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name: DORY JOE	**Opr dba:**		**Aircraft Fire: NONE**	
			AW Cert: SPX	

Summary

The pilot reported that he had been practicing touch-and-go landings and short takeoffs and landings in gusting wind conditions. On the fourth landing, the airplane encountered a wind gust, and he lost directional control of the airplane. He attempted to go around, but the left wing struck desert brush, and the airplane spun to the left. The airplane nosed over and came to rest inverted.

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

Per the National Transportation Safety Board Pilot Aircraft Accident Report, the pilot reported that the accident could have been prevented if, "in the wind conditions, I.[had] carried a little more airspeed to help with the gusts."

The pilot reported that there were no preaccident mechanical malfunctions or failures 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 maintain adequate airspeed during landing in gusting wind conditions, which resulted in a loss of directional control.

Events

1. Landing - Other weather encounter
2. Landing - Loss of control in flight
3. Landing - Collision with terr/obj (non-CFIT)
4. Landing - Nose over/nose down

Findings - Cause/Factor

1. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Airspeed-Not attained/maintained - C
2. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Directional control-Not attained/maintained - C
3. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
4. Environmental issues-Conditions/weather/phenomena-Wind-Gusts-Effect on operation - C
5. Environmental issues-Physical environment-Terrain-(general)-Contributed to outcome

Narrative

The pilot reported that he had been practicing touch and go landings along with short takeoffs and landings in gusting wind conditions. On the forth landing the airplane encountered a wind gust and he lost directional control of the airplane. He attempted to go-around but the left wing struck the desert brush and the airplane spun to the left. The airplane nosed over and came to rest inverted. Substantial damage was sustained to both wings, the rudder and the horizontal stabilizer.

Per the National Transportation Safety Board Pilot Aircraft Accident Report, the pilot reported that the accident could have been prevented by, "in the wind conditions, I should have carried a little more airspeed to help with the gusts."

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

Accident Rpt# WPR14LA263 06/22/2014 1430	**Regis# N127JK**	**Lehi, UT**	**Apt: Cedar Valley UT10**
Acft Mk/Mdl KNELL ASC SPIRIT-NO SERIES	**Acft SN 0004**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
	Acft TT 285	**Fatal 1 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: KNELL JEFF K	**Opr dba:**		**Aircraft Fire: NONE**

Summary

The private pilot of the experimental, amateur-built glider was conducting a local flight. The tow plane pilot reported that, as the glider pilot approached the privately owned airport, he announced over the radio his intent to land. He and one witness in the area reported seeing the glider circling to land and making several steep turns during the descent. When the glider was about 30 to 40 ft above ground level, the nose suddenly dropped, and the glider then descended straight down into the ground short of the runway. Another witness reported that it looked like the glider had stalled.

Wreckage documentation indicated that the glider impacted terrain in a steep, nose-down, left-wing-low attitude with little forward motion, which is consistent with a stall. Postaccident examination of the airframe revealed no anomalies that would have precluded normal operation.ÿIt is likely that the pilot exceeded the glider's critical angle of attack while maneuvering to land, which resulted in an aerodynamic stall.ÿ

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Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's exceedance of the glider's critical angle of attack while maneuvering in a steep turn at low altitude, which resulted in an aerodynamic stall.

Events

1. Approach-VFR pattern final - Aerodynamic stall/spin
2. Approach-VFR pattern final - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Angle of attack-Capability exceeded - C
2. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C

Narrative

HISTORY OF FLIGHT

On June 22, 2014, about 1430 mountain daylight time, an experimental amateur-built, ASC Spirit Glider, N127JK, impacted terrain about one-half mile southeast of the Cedar Valley Airport (UT10), 10 miles west of Lehi, Utah. The glider was owned and being operated by the pilot/builder as a visual flight rules personal local flight under 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed, and no flight plan was filed. The solo pilot received fatal injuries. The glider departed UT10, about 1350.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on June 23, a Federal Aviation Administration (FAA) air safety inspector who visited the accident site, said witnesses reported that the glider was circling to land on runway 35. During the descent, the pilot made several steep turns. When the airplane was about 30 to 40 ft above the ground, the right wing dropped and the glider suddenly nosed into the ground short of the runway.

A witness who was the tow-plane pilot, reported that he towed the glider to about 7,500 ft. (mean sea level) where the pilot released from the tow. The tow pilot then landed back at the airfield and met with another glider pilot he was preparing to tow.

The witness added that the accident glider made several circles southeast of the airport and then announced over the radio that he was setting up to land on runway 35. He reported that it appeared the accident glider was coming in too steep. He added that he watched as the glider's turns continued to steepen and then the glider descended straight down at an "almost vertical attitude."

An additional witness reported that he saw the glider from a distance, and that the glider was about 500-800 ft above the ground, and it appeared to be circling back towards the airport when he lost sight of it.

When he saw it again, it appeared to be 30 to 40 ft above the ground. He saw the glider crash south of the airport.

A third witness reported that the glider was coming in to land and made a turn. He added that it looked like the glider stalled and crashed nose first.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with a glider rating. The pilot received a third-class medical certificate on October 17, 1995, with the limitation for corrective lenses. No personal flight records were discovered for examination and the pilot's total flying experience was estimated to be about 350 total flight hours.

AIRCRAFT INFORMATION

The airplane was an experimental amateur-built ASC, single-seat, Spirit glider, built by the pilot in 2007. The pilot/builder held a Repairman Experimental Aircraft certificate issued by the Federal Aviation Administration. Maintenance records showed that the last condition inspection (Annual equivalent) was completed by the pilot/builder on May 18, 2013. At the time of the inspection, the glider had accrued a total of 285 flight hours.

METEOROLOGICAL INFORMATION

The closest official weather reporting station, about 7 miles northwest of the accident site, reported sky condition clear, temperature 86 degrees, dew point 36 degrees, altimeter setting 29.95 inches of mercury, wind variable at 4 knots, and visibility 15 miles. The density altitude was calculated to be 7,874 ft.

COMMUNICATIONS

Prior to the accident, the pilot of the accident airplane was heard on the airport's universal communications radio frequency (UNICOM) reporting his position and intent to land; no mechanical anomalies were reported.

AIRPORT INFORMATION

Cedar Valley Airport (UT 10), was privately-owned and permission from the owner was required for operating at the airport. The airport was located in a high desert valley at an elevation of 5,000 ft, and had a gravel runway (17/35) 100 ft wide and 5,100 ft long. There was no official weather reporting at the airport. The airport did have a windsock. The Airport Facilities Directory remarks stated glider operations on and in the vicinity of the airport.

WRECKAGE AND IMPACT INFORMATION

According to a Utah County Deputy who was dispatched to the accident site, upon arrival, he found the glider about one quarter to one half mile South of the airport.

The glider was oriented with the nose pointing southwest. There were imprints in the ground under each wing. There was damage to the tail, cockpit, left wing, and nose. The scattered debris appeared mostly in front of the glider.

The pilot's seat and pilot were located outside of the glider and the pilot was wearing a parachute.

An FAA air safety inspector examined the glider. The inspector said all the major components of the glider were present, and no mechanical anomalies were found.

Photographs provided by the Utah County Sheriff, Spanish Fork, Utah, taken at the accident site were provided to the National Transportation Safety Board (NTSB) investigator-in-charge.

Photographs taken the day of the accident showed Visual Flight rules weather conditions at the time the photos were taken.

The photos showed the glider upright on the dirt, in a large expanse of flat desert landscape. No trees or large vegetation were visible. No ground-scars were visible at the point of impact. The major structural components of the glider were present. The glider was composite construction, and the nose/cockpit section

showed compression fracturing up and aft, consistent with impact at a steep nose-down angle. The cockpit showed a pronounced bend to the left forward of the cockpit's aft bulkhead. The right-wing appeared relatively intact and undamaged. The left-wing showed compression aft and separation forward at the wing-root. The upper and lower left-wing panels had separated along the leading and trailing edges. The vertical stabilizer had folded forward and showed compression fracturing on the upper portion of the joint/intersection with the tail-cone.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination of the pilot was completed under the authority of the Utah Department of Health, Office of the Medical Examiner, Salt Lake City, Utah. The pilot's cause of death was attributed to multiple blunt force injuries.

The FAA Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma, completed a toxicological examination September 8, 2014. No toxicological anomalies were found.

Accident Rpt# GAA17CA447 07/19/2017 1030 EDT	**Regis# N489MG**	**Louisburg, NC**	**Apt: Ball 79NC**	
Acft Mk/Mdl MICHAEL DEAN GRISSOM GRISSOM	**Acft SN 01**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl CONTINENTAL A-65-8	**Acft TT 42**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name: MICHAEL DEAN GRISSOM	**Opr dba:**		**Aircraft Fire: NONE**	
			AW Cert: SPE	

Summary

The pilot reported that, during the landing, the airplane "landed short and hard." Subsequently, the main landing gear collapsed.

The airplane sustained substantial damage to the right wing lift strut.

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 improper landing flare, which resulted in a hard landing.

Events

1. Landing - Landing area undershoot
2. Landing - Hard landing
3. Landing - Landing gear collapse

Findings - Cause/Factor

1. Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Landing flare-Not attained/maintained - C
2. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C

Narrative

The pilot reported that, during the landing, the airplane "landed short and hard". Subsequently, the main landing gear collapsed.

The airplane sustained substantial damage to the right wing lift strut.

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

Accident Rpt# WPR17LA082	**03/31/2017 1655 PDT**	**Regis# N610TT**	**The Dalles, OR**	**Apt: Columbia Gorge Regional/the Da DLS**
Acft Mk/Mdl OTT 601XL-B		**Acft SN 6-7884**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl OTT 3250		**Acft TT 129**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: OTT LOUIS W		**Opr dba:**		**Aircraft Fire: NONE**

Events

1. Enroute-climb to cruise - Loss of engine power (partial)
3. Landing - Landing area undershoot

Narrative

On March 31, 2017 about 1655 Pacific daylight time, an OTT 601XL-B airplane, N610TT, the pilot executed a precautionary landing about one mile southeast of the Columbia Gorge Regional/The Dalles Municipal Airport (DLS), The Dalles, Oregon after the engine experienced a partial loss of engine power. The commercial pilot and one passenger sustained minor injuries, and the airplane was substantially damaged throughout. The airplane was registered to and operated by the pilot as a 14 Code of Federal Regulations Part 91 personal, local flight. Visual meteorological conditions prevailed at the time of the accident and no flight plan was filed.

The pilot reported that the purpose of the flight was to verify the proper fuel mixture setting for the electronic mixture system. The airplane departed the airport to the northeast and while climbing through 3,500 feet, the pilot heard the engine sound abruptly change. Concurrent with the change, he observed a loss of RPM and high exhaust gas temperature readings. The pilot returned towards the airport and attempted to troubleshoot the problem, however, the airplane was producing less power than expected. The pilot established a normal traffic pattern for runway 31. After turning final the airplane was low, and despite the pilot adding power, the airplane impacted terrain short of the runway surface.

A postaccident examination revealed no indications of catastrophic malfunction. The engine was rotated and compression was established on all cylinders. The spark plugs were removed and the cylinders were boroscoped; all cylinders exhibited normal operating signatures. The external timing marks at the rear of the engine were not consistent with the markings on the multi-toothed plate on the propeller shaft. Further examination revealed the bolts holding the propeller hub to the drive hub were all fractured. The bolts were removed and sent to the National Transportation Safety Board (NTSB) materials laboratory for further examination.

The NTSB materials laboratory reported that the bolts were fractured in the 13th-15th thread root from the base of the bolt. The general features of the fracture surfaces were consistent with each other. The fracture surfaces exhibited opposite-facing flat thumbnail-shaped regions with a middle rougher region. The thumbnail regions exhibited crack arrest marks, which were orientated with propagation inward from the surface of the thread roots. The thumbnail regions also exhibited ratchet marks near the thread root surfaces, consistent with multiple crack initiation sites. These features were all consistent with fatigue in reverse bending.

The pilot reported that the engine was a Corvair conversion engine built by him and a friend. They built this engine to be slightly different than other conversions, which allows it to be more powerful. The bolts that are normally used to connect the propeller hub to the drive hub were too short; therefore, he elected to use the accident bolts. He further reported that he believes he torqued the bolts properly, however, he noted that the holes on the propeller hub were not very tight.

Accident Rpt# GAA17CA240 04/21/2017 1610 PDT	**Regis# N661RP**	**Wenatchee, WA**	**Apt: Pangborn Memorial EAT**
Acft Mk/Mdl PARLETTE ROBERT L GLASTAR-NO	**Acft SN 5620**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl SUPERIOR XP-360		**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: ROBERT L. PARLETTE	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPE

Summary

The pilot of the tundra-tire-equipped, tailwheel airplane reported that the airplane landed hard and "bounced pretty good." He applied power to go around, but during the crosswind turn, a downdraft pushed the airplane to the ground. Subsequently, the airplane impacted trees.

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

After multiple requests, the pilot did not return the National Transportation Safety Board Form 6120.1 Pilot/Operator Aircraft Accident/Incident Report.

A review of recorded data from the automated weather observation station located on the airport reported that, about 15 minutes before the accident, the wind was from 170ø at 7 knots, gusting to 16 knots. It is unknown which direction the airplane was landing.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's improper landing flare and subsequent failure to adequately compensate for gusting wind conditions during a go-around.

Events

1. Landing - Loss of control on ground
2. Landing - Attempted remediation/recovery
3. Approach-VFR pattern crosswind - Other weather encounter
4. Approach-VFR pattern crosswind - Loss of control in flight
5. Approach-VFR pattern crosswind - Collision with terr/obj (non-CFIT)

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-Landing flare-Not attained/maintained - C
3. Environmental issues-Conditions/weather/phenomena-Wind-Gusts-Response/compensation - C
4. Environmental issues-Physical environment-Object/animal/substance-Tree(s)-Contributed to outcome

Narrative

The pilot of the tundra tire-equipped, tailwheel airplane reported that, the airplane landed hard and "bounced pretty good". He applied power to go-around, but during the crosswind turn, a downdraft pushed the airplane to the ground, and subsequently the airplane impacted trees.

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

After multiple requests, the pilot did not return the National Transportation Safety Board Form 6120.1 Pilot/Operator Aircraft Accident/Incident Report as requested.

A review of recorded data from the automated weather observation station, located on the airport, reported that about 15 minutes before the accident the wind was from 170ø at 7 knots, gusting 16 knots. It's unknown which direction the airplane was landing.

Accident Rpt# GAA17CA458A 07/28/2017 1315 PDT	**Regis# N16MR**	**Spokane, WA**	**Apt: Fairchild Afb SKA**	
Acft Mk/Mdl RANDALL MARVIN L VANS RV	**Acft SN 811-3**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl SUPERIOR SLO-320-A1XC2	**Acft TT 2105**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name: DAVID D. MYERS	**Opr dba:**		**Aircraft Fire: NONE**	
			AW Cert: SPE	

Summary

The pilots reported that, following a formation flight and landing of four airplanes and while taxiing to park, the lead airplane reduced power to idle, and the engine quit.

After multiple attempts to restart the engine, the lead pilot signaled the other pilots to pass on the left side and continue to park. As the second airplane taxied past, the third airplane followed.

The pilots added that the third airplane's pilot had limited forward visibility due to the nose attitude of the airplane and that the pilot was unaware that the lead airplane was stationary. Subsequently, the third airplane passed the lead airplane with insufficient clearance, which resulted in the third airplane's right wing colliding with the lead airplane's left elevator and the third airplane's propeller striking the lead airplane's left wing.

The lead airplane sustained substantial damage to the left wing and left elevator.

The pilots reported that there were no preaccident mechanical failures or malfunctions with the airplanes 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 maintain adequate clearance and visual lookout while taxiing, which resulted in his airplane colliding with the stationary airplane.

Events

1. Taxi-from runway - Ground collision

Findings - Cause/Factor

1. Personnel issues-Psychological-Attention/monitoring-Monitoring other aircraft-Pilot - C
2. Environmental issues-Physical environment-Object/animal/substance-Aircraft-Effect on operation - C
3. Personnel issues-Action/decision-Info processing/decision-Expectation/assumption-Pilot
4. Environmental issues-Task environment-Physical workspace-Visibility-Effect on personnel

Narrative

Following a formation flight and landing of four airplanes, the pilots reported that, while taxing to park, the lead airplane reduced power to idle and the engine quit.

After multiple attempts to restart the engine, the lead pilot signaled the other pilots to pass on the left side, and continue to parking. As the 2nd airplane taxied past, the 3rd airplane followed.

The pilots added that, the 3rd airplane had limited forward visibility due to the nose attitude of the airplane, and the pilot was unaware that the lead airplane was stationary. Subsequently, the 3rd airplane passed the lead airplane with insufficient clearance, resulting in the 3rd airplane's right-wing colliding with the lead airplane's left elevator, and the propeller from the 3rd airplane struck the lead airplane's left wing.

The lead airplane sustained substantial damage to the left wing and left elevator.

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

Accident Rpt# CEN17LA098	**02/01/2017 1536 MST**	**Regis# N294MV**	**Anthony, NM**	**Apt: Cielo Dorado Estates Airport NM05**
Acft Mk/Mdl ROBINSON MICHAEL E COZY MARK IV		**Acft SN 0394**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl LYCOMING IO-360-C1C		**Acft TT 4**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: ROBINSON MICHAEL E		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

1. Initial climb - Loss of engine power (total)

Narrative

On February 1, 2017, about 1536 mountain standard time, an experimental amateur-built Cozy Mark IV airplane, N294MV, was substantially damaged during a forced landing near Anthony, New Mexico. The airline transport pilot and private pilot were not injured. The airplane was registered to and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Day visual meteorological conditions prevailed for the local flight, which had recently departed from Cielo Dorado Estates Airport (NM05), Santa Teresa, New Mexico.

The two pilots had been flying about 90 minutes, during which they accomplished several approaches in the local area. While executing a go-around from NM05, the private pilot applied full power and began a climb. About 400 ft above ground level, the pilots noticed a total and abrupt loss of engine power. Based on their perception that the power loss was due to a fuel issue, the pilots turned the fuel boost pump on and adjusted the mixture control, with no effect. The airline transport pilot accomplished a forced landing into a field, during which the right wing and fuselage were damaged.

The accident occurred on the second flight of the amateur-built airplane, which was equipped with a Lycoming IO-360-C1C fuel injected engine. Examination at the accident site by a Federal Aviation Administration (FAA) inspector revealed adequate fuel was present in both the left and right fuel tanks, with the fuel selector in the right tank position.

At the recovery location, a mechanic's examination revealed that all fuel lines and the fuel filter were intact and unobstructed. A small amount of sanding dust was observed in the fuel filter. The fuel boost pump was tested and determined to be operational. The fuel flow divider was removed and disassembled, which revealed a small amount of sanding dust. A flow check was conducted on the fuel nozzles, with no blockages or anomalies. During rotation of the propeller, the engine displayed normal continuity and magneto operation. No engine or fuel system anomalies were discovered that would have resulted in a loss of engine power.

Accident Rpt# GAA17CA411A 07/16/2017 1526 PDT	**Regis# N506WS**	**San Diego, CA**	**Apt: Montgomery-gibbs Executive MYF**
Acft Mk/Mdl SPANI WAYNE M STARDUSTER TOO	**Acft SN 1407**	**Acft Dmg: MINOR**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl LYCOMING O-435-1	**Acft TT 443**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: DANIEL CALLAN	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPE

Events

1. Taxi-to runway - Ground collision

Narrative

The pilot of the tandem seat, tailwheel-equipped airplane reported that, while taxiing to the runway, and seated in the rear seat, he had "poor [forward] visibility" and the airplane's propeller collided with the left wing of a stationary airplane on the taxiway. The pilot reported that he had "broke and turned" as soon as he saw the stationary airplane, but "it was too late."

The pilot of the stationary airplane reported that he had stopped on the taxiway due to the run-up area ahead being fully occupied with multiple airplane's awaiting to depart. He added that, his "first awareness" of the tailwheel airplane was the sound of a "loud bang."

The stationary airplane's left wing and aileron sustained substantial damage. The tailwheel airplane sustained minor damage to the propeller.

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

Accident Rpt# WPR18LA007	**10/05/2017 1053 PDT**	**Regis# N248ST**	**Santa Ynez, CA**	**Apt: Santa Ynez IZA**
Acft Mk/Mdl THOMAS STEPHEN GLASAIR SUPER II		**Acft SN 001**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Prelim** **Prob Caus: Pending**
			Fatal 0 **Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: THOMAS STEPHEN		**Opr dba:**		**Aircraft Fire: NONE**
				AW Cert: SPE

Events

2. Takeoff-rejected takeoff - Loss of control on ground

Narrative

On October 5, 2017, at 1053 Pacific daylight time, an experimental amateur-built Glasair Super II RG kit airplane, N248ST, made a forced landing to a grassy field following a loss of engine power at the Santa Ynez Airport (IZA), Santa Ynez, California. The pilot/owner operated the airplane under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. The pilot was not injured. The airplane sustained substantial damage during the landing rollout when it impacted a perimeter fence and a dirt berm. Visual meteorological conditions prevailed for the local flight that was departing at the time of the accident. No flight plan had been filed.

According to the pilot's written statement, his intent was to do touch-and-go takeoffs and landings. After performing a walk-around inspection, he entered the airplane and started the engine normally. He taxied the airplane to the run-up area for runway 26 and performed a run-up; the run-up was normal. He performed the pre-flight checklist and announced on Universal Communications (UNICOM) that he was taking off. The pilot stated that there were no problems with the first takeoff and landing. After landing, he decided to taxi back to the run-up area for runway 26.

Shorty after the second takeoff, the pilot noticed that the engine had stopped producing power. He initiated a left turn to enter the pattern, but the airplane was descending. The pilot stated that he had to make a forced landing to an open field; he reduced the throttle and leveled the wings in preparation for landing. The pilot landed on a grassy field and the airplane collided with a perimeter fence.

An inspector from the Federal Aviation Administration (FAA) responded to the accident site. He verified that fuel was present in the fuel tanks. The pilot told him that he had refueled the airplane with 15 gallons of fuel in each wing, about 2 weeks before the accident.

Accident Rpt# GAA17CA458B 07/28/2017 1315 PDT	**Regis# N6GT**	**Spokane, WA**	**Apt: Fairchild Afb SKA**
Acft Mk/Mdl WILTS GAYLE T RV-3A-NO SERIES	**Acft SN 811-1**	**Acft Dmg: SUBSTANTIAL**	**Rpt Status: Factual Prob Caus: Pending**
Eng Mk/Mdl LYCOMING AEIO-L-320EIB	**Acft TT 2349**	**Fatal 0 Ser Inj 0**	**Flt Conducted Under: FAR 091**
Opr Name: VANGUARD SQUADRON INC	**Opr dba:**		**Aircraft Fire: NONE**
			AW Cert: SPE

Summary

The pilots reported that, following a formation flight and landing of four airplanes and while taxiing to park, the lead airplane pilot reduced power to idle, and the engine quit.

After multiple attempts to restart the engine, the lead pilot signaled the other pilots to pass on the left side and continue to park. As the second airplane taxied past, the third airplane followed.

The pilots added that the third airplane's pilot had limited forward visibility due to the airplane's nose attitude and that the pilot was unaware that the lead airplane was stationary. Subsequently, the third airplane passed the lead airplane with insufficient clearance, which resulted in the third airplane's right wing and propeller colliding with the lead airplane's left elevator and the third airplane's propeller striking the lead airplane's left wing.

The lead airplane sustained substantial damage to the left wing and left elevator.

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

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The other pilot's failure to maintain adequate clearance and visual lookout while taxiing, which resulted in his airplane colliding with the stationary airplane.

Events

1. Taxi-from runway - Ground collision

Findings - Cause/Factor

1. Personnel issues-Psychological-Attention/monitoring-Monitoring other aircraft-Pilot of other aircraft - C
2. Environmental issues-Physical environment-Object/animal/substance-Aircraft-Effect on operation - C
3. Personnel issues-Action/decision-Info processing/decision-Expectation/assumption-Pilot of other aircraft

Narrative

Following a formation flight and landing of four airplanes, the pilots reported that, while taxing to park, the lead airplane reduced power to idle and the engine quit.

After multiple attempts to restart the engine, the lead pilot signaled the other pilots to pass on the left side, and continue to parking. As the 2nd airplane taxied past, the 3rd airplane followed.

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The lead airplane sustained substantial damage to the left wing and left elevator.

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

Accident Rpt# CEN16FA014	**10/17/2015 841 CDT**	**Regis# N999ZF**	**Cortland, NE**	**Apt: N/a**	
Acft Mk/Mdl ZIDEK VANS RV-4		**Acft SN 2407**	**Acft Dmg: DESTROYED**	**Rpt Status: Factual**	**Prob Caus: Pending**
Eng Mk/Mdl LYCOMING IO-320-D1C		**Acft TT 591**	**Fatal 2 Ser Inj 0**	**Flt Conducted Under: FAR 091**	
Opr Name: JERRY A. ALLDER		**Opr dba:**		**Aircraft Fire: GRD**	
				AW Cert: SPE	

Events

1. Maneuvering-low-alt flying - Loss of control in flight

Narrative

HISTORY OF FLIGHT

On October 17, 2015, about 0841 central daylight time, an experimental, amateur-built Vans RV-4 single-engine airplane, N999ZF, collided with terrain while maneuvering near Cortland, Nebraska. The private pilot and the pilot-rated passenger were 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 without a flight plan. Day visual meteorological conditions prevailed at the accident site. The personal flight departed Crete Municipal Airport (CEK), Crete, Nebraska, at 0833, and the intended destination was Lincoln Airport (LNK), Lincoln, Nebraska.

According to available air traffic control radar track data, after departing CEK on runway 17, the airplane proceeded southeast and climbed to an altitude of about 2,600 ft mean sea level (msl). At 0836:30, the airplane turned south and descended to 2,400 ft msl. At 0837:44, the airplane turned east and continued to descend. Between 0839:23 and 0841:42, the airplane completed four low-altitude passes centered over a small lake located about 1/3 mile northeast of the intersection of West Ash Road and Southwest 29th Road. The small lake was located adjacent to a residence owned by the pilot's brother. The low-altitude passes and associated course reversals were completed within a 1/2 mile radius of the small lake. According to available topography data, the terrain elevation immediately surrounding the lake was about 1,470 ft msl.

According to radar track data, the airplane's first low pass over the lake was from southeast to northwest at an altitude at or below 100 ft above ground level (agl). The airplane then entered a climbing right turn to about 1,900 ft msl before it descended back toward the lake from north to south at an altitude at or below 100 ft agl. The airplane then completed a 180ø turn at 1,600 ft msl before it descended for a low pass from south to north at an altitude at or below 100 ft agl. The airplane then entered a climbing right turn to about 1,800 ft msl before it descended for a fourth and final low pass from northeast to southwest at an altitude at or below 100 ft agl. Following the fourth low pass, the airplane entered a climb on a southwest heading to about 2,000 ft msl before it entered a sharp right turn toward north. The final radar return was recorded at 0841:42 and showed the airplane at 1,700 ft msl and about 472 ft east of the initial ground impact point.

The pilot's brother stated that he witnessed the airplane complete several low-altitude passes over his property immediately before the accident. He stated that following the final low pass, the airplane pitched up into a climbing right turn. He stated that, during the climbing turn, the airplane suddenly pitched nose-down and descended rapidly. The airplane recovered briefly to a wings-level attitude before it quickly rolled wings-left and -right and entered a descending right turn into terrain.

PERSONNEL INFORMATION

--- Pilot ---

According to Federal Aviation Administration (FAA) records, the 68-year-old pilot held a private pilot certificate with a single-engine land airplane rating. His most recent FAA third-class medical certificate was issued on November 1, 2013, with a limitation for corrective lenses. On the application for his current medical certificate, the pilot reported having accumulated 323 total hours of flight experience, of which 35 hours were flown within the previous 6 months.

The pilot's flight history was established using his logbook. The final logbook entry was dated October 14, 2015, at which time he had accumulated 512.5 hours total flight time. All logged flight time had been completed in single-engine airplanes. He had logged 501.9 hours as pilot-in-command, 3.4 hours at night, and 4.3 hours in simulated instrument conditions. He had flown 91.7 hours during the year before the accident, 47.8 hours during the 6 months before the accident, 15.8 hours during the 90 days before the accident, and 5.9 hours during the month before the accident. The pilot had accumulated 148.3 hours in the accident airplane make/model. His last flight review was completed in the accident airplane on July 16, 2014.

--- Pilot-Rated Passenger ---

According to FAA records, the 54-year-old passenger held a private pilot certificate with a single-engine land airplane rating. His most recent FAA third-class medical certificate was issued on February 4, 2013, with a limitation for corrective lenses. The medical certificate expired on February 28, 2015. On the application for his expired medical certificate, the pilot reported having accumulated 222.4 total hours of flight experience, of which 18.5 hours were flown within the previous 6 months. The pilot's flight history was established using his logbook. The final logbook entry was for a flight review on July 18, 2014, at which time he had accumulated 245.8 hours total flight time. The pilot had not logged any flight time during the year before the accident.

AIRCRAFT INFORMATION

The airplane, serial number 2407, was a single-engine, low-wing, fixed conventional landing gear, monoplane of conventional aluminum construction, configured to seat two occupants in a tandem seating arrangement. The airplane was powered by a 160-horsepower, 4-cylinder Lycoming IO-320-D1C reciprocating engine, serial number L-5910-55A. The engine provided thrust through a fixed-pitch, two-blade, Sensenich 70CM7S16-0-79 propeller, serial number 31698K. The airplane had a useful load of 628 pounds, a maximum allowable takeoff weight of 1,600 pounds, and a total fuel capacity of 32 gallons. A previous owner assembled the airplane from a kit. The FAA issued the airplane a special airworthiness certificate with an experimental classification and associated operating limitations on October 22, 1996. The pilot was the registered owner of the airplane, and FAA records indicated that he purchased the airplane in November 2013.

The airplane's recording tachometer was destroyed during the postimpact fire, which precluded a determination of the airplane's total service time at the time of the accident. According to the maintenance logbooks, the last condition inspection was completed on November 15, 2014, at 590.5 total airframe hours. At the time of the condition inspection, the engine had also accumulated 590.5 hours since new. The final logbook entry, dated October 8, 2015, was for an engine oil change at 674.5 total airframe/engine hours. A postaccident review of the maintenance records found no history of unresolved airworthiness issues.

METEOROLOGICAL INFORMATION

At 0854, the LNK automated surface observing system located about 25 miles north of the accident site reported: wind 120ø at 9 knots, a clear sky, 10 miles surface visibility, temperature 8øC, dew point -1øC, and an altimeter setting of 30.49 inches of mercury

WRECKAGE AND IMPACT INFORMATION

The accident site was in a harvested soybean field. The wreckage debris path was oriented on a 265ø magnetic heading and measured about 92 ft long. The initial impact crater contained the propeller and the right main landing gear. The impact crater also exhibited a well-defined propeller slash mark in the terrain. The estimated angle between the propeller slash mark and the surrounding terrain was about 30ø. The two-blade propeller exhibited chordwise scratches near both blade tips. One propeller blade exhibited significant S-shape bending along its span. A large area of burnt ground and vegetation surrounded the main wreckage, which consisted of the fuselage, empennage, both wings, and the engine. A majority of the fuselage, including the cockpit and cabin, had been consumed during the postimpact fire. Flight control continuity could not be established due to impact and fire damage; however, all observed separations were consistent with overstress or damage caused by prolonged exposure to fire.

The engine remained partially attached to the firewall. Internal engine and valve train continuity were confirmed as the engine crankshaft was rotated. Compression and suction were noted on all cylinders in conjunction with crankshaft rotation. The internal oil pump discharged oil in conjunction with crankshaft rotation. The mechanical fuel pump exhibited fire damage and did not function. Neither magneto provided a spark when rotated by hand; however, both magnetos exhibited damage consistent with impact and prolonged exposure to fire. The upper spark plugs were removed and exhibited features consistent with normal engine operation. The fuel metering assembly had separated from the engine and exhibited impact related damage. The postaccident examination revealed no evidence of preimpact mechanical malfunctions or failures that would have precluded normal engine operation.

MEDICAL AND PATHOLOGICAL INFORMATION

The Douglas County Coroner's Office, located in Omaha, Nebraska, performed autopsies on the pilot and pilot-rated passenger at the request of the Gage County Attorney. The cause of death for both individuals was attributed to multiple blunt-force injuries sustained during the accident.

The FAA's Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma, performed toxicology tests on specimens obtained during each autopsy. The pilot's toxicology results were negative for ethanol. Ibuprofen was detected in the urine. Ibuprofen, sold under multiple brand names, is a nonsteroidal anti-inflammatory analgesic drug that is not considered impairing.

The pilot-rated passenger's toxicology results were negative for carbon monoxide and ethanol. Oxymetazoline was detected in urine but not in blood. Oxymetazoline, sold under multiple brand names, is an over-the-counter topical decongestant that is not considered impairing.