
National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA561 09/27/2017 1150 CDT Regis# N200XW Bessemer, AL Apt: Bessemer EKY
Acft Mk/Mdl AMERICAN LEGEND AIRCRAFT CO Acft SN AL-1208 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: C & D AVIATION LLC Opr dba: Aircraft Fire:

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA16LA167 04/20/2016 1130 EDT Regis# N202CH Myerstown, PA Apt: Deck Airport 9D4
Acft Mk/Mdl BELL 47D1 Acft SN 301 Acft Dmg: SUBSTANTIAL Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl FRANKLIN 6V-335A Acft TT 12280 Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: INTERREX ADVENTURES INC Opr dba: Aircraft Fire: NONE
AW Cert: STN

Summary

The flight instructor reported that she was providing a flight review to the pilot and was demonstrating an autorotation that would terminate with power. She entered the maneuver about 1,500 ft above ground level (agl) by reducing the throttle to idle and lowering the collective to the "full-down" position. The carburetor heat was off. The instructor stabilized the approach at 45 mph but noted that the engine's idle speed was about 100 rpm higher than normal. The instructor was not satisfied with the needle split between the engine and rotor rpm, so she advanced the throttle to the "full-open" position. However, the engine did not respond. The instructor entered a flare about 50 ft agl, and the helicopter impacted the ground with little-to-no forward speed, bounced, and then rolled over to the left. The pilot confirmed that the throttle was full open and that there was no engine power.

Postaccident examination of the helicopter and engine revealed no preimpact mechanical anomalies that would have precluded normal operation. Weather conditions at the time of the accident were not conducive to the accumulation of carburetor icing. The reason for the loss of engine power could not be determined.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: A total loss of engine power for reasons that could not be determined because examination of the engine revealed no mechanical anomalies that would have precluded normal operation.

Events

1. Maneuvering - Simulated/training event
2. Autorotation - Attempted remediation/recovery
3. Autorotation - Loss of engine power (partial)
4. Landing-flare/touchdown - Hard landing
5. Landing-flare/touchdown - Roll over

Findings - Cause/Factor

1. Not determined-Not determined-(general)-(general)-Unknown/Not determined - C

Narrative

On April 20, 2016, about 1130 eastern daylight time, a Bell 47D1, N202CH, was substantially damaged during practice autorotation landings at Deck Airport (9D4), Myerstown, Pennsylvania. The flight instructor and airline transport pilot were not injured. The helicopter was registered to and operated by a private company. Visual meteorological conditions prevailed and no flight plan was filed for the local flight conducted as a 14 Code of Federal Regulations Part 91 instructional flight.

The flight instructor, who was seated in the right seat, was performing a flight review for the pilot. She stated that she was demonstrating an autorotation that would terminate with power. The instructor entered the maneuver about 1,500 feet above ground level (agl) by reducing throttle to idle and lowering the collective to the full down position. The carburetor heat was off. She stabilized the approach at 45 miles per hour (mph), but noted the engine's idle speed was about 100 rpm higher than normal. The instructor said she was not satisfied with the needle split between the engine and rotor rpm, so she advanced the throttle to the full open position. When she did this, there was no response from the engine. The instructor entered a flare about 50 ft agl and the helicopter impacted the ground with little to no forward speed, bounced and rolled over to the left.

The pilot stated he was receiving a flight review and was monitoring the instructor's demonstration of an autorotation that would terminate with power. They entered the maneuver about 1,200 ft agl and all appeared normal. The pilot was scanning the engine rpm, rotor rpm, and "ball" throughout the demonstration. When the helicopter reached an altitude of 50 ft agl, he noticed the rotor and engine speed needles were still split so he reached over and confirmed that the throttle was indeed full open.

A postaccident examination of the helicopter and engine revealed the throttle linkage moved freely from the idle to the full-open position. The engine remained attached to the airframe but had sustained impact damage to several engine mounts and could not be rotated. The ring gear cover at the magneto mount was also broken/cracked. All of the spark plugs were removed and examined, with the exception of the No. 6 cylinder top plug, which was broken off in the cylinder. The spark plugs were bench-tested and each produced a spark. No other mechanical anomalies were noted that would have precluded normal operation of the

engine.

The flight instructor held an airline transport pilot certificate for airplane single and multi-engine land. She also held a flight instructor certificate for single and multi-engine airplane, rotorcraft helicopter, and instrument airplane and helicopter. The instructor reported a total flight time of 2,024 hours, of which, 590 hours were in helicopters and 31 hours were in the accident helicopter. Her last Federal Aviation Administration (FAA) first-class medical was issued on March 13, 2015.

The pilot held an airline transport pilot certificate for airplane single and multi-engine land, rotorcraft-helicopter, and instrument helicopter. His last FAA second-class medical was issued on May 4, 2015. At that time, he reported a total flight time of 14,710 hours.

Weather at Muir Army Airfield (KMUJ), about 12 miles east of the accident site, at 1208, was wind 200 degrees at 6 knots, visibility 7 miles, clear skies, temperature 64 degrees F, 25 degrees F, and a barometric pressure setting of 30.26 inches of mercury. A review of the carburetor icing probability chart from FAA Special Airworthiness Information Bulletin (SAIB): CE-09-35 Carburetor Icing Prevention, June 30, 2009, revealed the temperature and dew point reported at the time of the accident were not conducive for the formation of carburetor icing.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR17LA206	09/17/2017 700 PDT	Regis# N3285T	Salinas, CA	Apt: Salinas Muni SNS
Acft Mk/Mdl BELL 47G 5		Acft SN 7964	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING VO-435 SERIES			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 137
Opr Name:		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Maneuvering - Controlled flight into terr/obj (CFIT)
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Narrative

On September 17, 2017, about 0700 Pacific daylight time (PDT), a Bell 47G-5 helicopter, N3285T, was substantially damaged when it impacted a wire and terrain while maneuvering about 3 miles west of Salinas, California. The commercial pilot, the sole occupant of the helicopter, had minor injuries. The helicopter was registered to and operated by Wilbur-Ellis, Co., under provisions of Title 14 Code of Federal Regulations Part 137. Visual meteorological conditions prevailed and no flight plan was filed. The local aerial application flight originated from a loading area near the accident site a few minutes before the accident.

According to the pilot, this was the second field of the day that he was treating, and the first pass of the field when the helicopter collided with a support wire. He recalled that after the helicopter was loaded with chemicals, he departed and flew around a large power transmission line tower to the east of the field. He had planned to fly the first pass from the northeast side and spray the middle of the field to the southwest. He remembers looking for vehicle traffic that runs along the edge of the field before crossing under the smaller powerlines supported by 40-foot power poles that parallel the road. He did not recall seeing the support wire on the 40-foot power poles prior to the accident. He further reported that he had been spraying this field for the last 20 years, and that the weather was not an issue on the morning of the accident.

A postaccident examination of the helicopter was conducted by the Federal Aviation Administration. The main rotor assembly was observed separated from the helicopter, and remnants of the support wire was found wrapped around the main drive shaft. The examination of the wreckage revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation.

The large power transmission line towers are positioned from the southwest to the northeast and parallel the southeast edge of the field being treated. The 40-foot poles that support power, telephone and data transmission lines, run southeast to a northwest direction and parallel the northeast edge of the field being sprayed. A support wire was installed at a height of about 20 feet up the 40-foot poles for attaching a larger cable data line. The data line had not been installed in this stretch of line.

The 0653 automated weather observation from Salinas Municipal Airport (SNS), Salinas, California, located about 5 miles east of the accident site included wind 180 degrees at 3 knots, visibility 9 miles, overcast at 900 feet, temperature 14 degrees C, dew point 13 degrees C, and an altimeter setting of 29.95 inches of mercury.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA537	08/23/2017	855 CDT	Regis# N181TM	Foley, AL	Apt: Resort 0AL1
Acft Mk/Mdl BELLANCA 8GCBC-NO SERIES			Acft SN 114-74	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
			Acft TT 5909	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: ADROALDO BEGROW			Opr dba:		Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA542	08/30/2017	1855 AKD	Regis# N2996S	Wasilla, AK	Apt: Wasilla IYS
Acft Mk/Mdl CESSNA 150-G			Acft SN 15066896	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
				Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: KINGDOM AIR CORP			Opr dba:		Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR16FA002	10/05/2015 1300	Regis# N6449M	Cedar City, UT	Apt: Cedar City Rgnl CDC
Acft Mk/Mdl CESSNA 152-NO SERIES		Acft SN 15284733	Acft Dmg: DESTROYED	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-235 SERIES		Acft TT 9715	Fatal 2 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: UPPER LIMIT AVIATION		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Maneuvering - Loss of control in flight

Narrative

HISTORY OF FLIGHT

On October 5, 2015, at 1300 mountain daylight time, a Cessna 152, N6449M, impacted a dry lake bed about 6 nautical miles southwest of Cedar City Municipal Airport (KCDC), Cedar City, Utah. The two flight instructors were fatally injured, and the airplane was destroyed by impact forces. Upper Limit Aviation was operating the airplane under the provisions of 14 Code of Federal Regulations Part 91. The local company check flight departed KCDC about 1215. Visual meteorological conditions prevailed, and no flight plan had been filed.

The operator reported that the purpose of the flight was for the chief pilot of the flight school to demonstrate the airplane to a newly hired flight instructor. Witnesses saw the airplane performing various maneuvers over the dry lake bed, which was used as a training area. One witness reported that, just before the accident, the airplane was descending in a near vertical fashion in a slight nose-low attitude and looked "like a fluttering leaf."

The airplane was equipped with an on-board flight tracking system that uploaded recorded data points via satellite to the operator every 2 minutes. The unit retained the recorded data in non-volatile memory at 5 second intervals. The unit was downloaded, and a review of the last 14 minute segment of flight data showed the airplane departing from KCDC at 1246 using runway 26. The data showed the airplane making a right turn to the north at 1248:04. The airplane continued the right turn and made a touch-and-go landing on runway 20.

At 1251:04, the airplane was climbing away from the runway. The flight track continued southwest toward the accident location. At 1256:04, the flight track passed over the accident site elevation (5,457 ft) at an altitude of 7,656 ft mean sea level (msl) and continued southwest in a gradual climb. The flight track showed a gradual left turn followed by a widening right climbing turn back toward the north. At 1259:49, the airplane's altitude was 8,661 ft msl, and the data then showed a descent to 8,179 ft msl during a 15 second period. By 1300:04, the airplane had climbed to an altitude of 8,353 ft msl. At 1300:19, the airplane was at an altitude of 8,559 ft msl (about 3,100 ft above ground level), and the remaining 35 seconds of data showed a near vertical descent toward the accident location. The last recorded data point at 1300:54 showed that the airplane was over the accident site, had a ground speed of 40 knots, and was at 5,580 ft msl.

PERSONNEL INFORMATION

AIRCRAFT INFORMATION

The two-seat, high-wing, fixed-gear airplane, serial number 15284733, was manufactured in 1980. It was powered by a 125-horsepower Lycoming O-235-L2C engine and equipped with a Sensenich 70CKS6-0-52 fixed-pitch propeller. Review of copies of maintenance logbook records showed that an annual inspection was completed on July 17, 2015, at an hour meter reading of 99.4 hours, airframe total time of 9,678.2 hours, and engine time since major overhaul of 99.4 hours. Examination of the maintenance and flight department records revealed no unresolved maintenance discrepancies against the airplane before departure.

Fueling records at KCDC established that the airplane was last fueled on October 5, 2015, with 14 gallons of 100-octane aviation fuel. The operator calculated, based on previous flight records, that the airplane departed with a total of 23 gallons of fuel on board.

The current weight and balance documentation for the airplane was found in the airplane flight manual. The maximum gross weight for the airplane was 1,670 pounds. The gross weight at departure was estimated at 1,709 pounds. Based on estimated fuel burn and flight time, at the time of the accident, the airplane had a gross weight of 1,681 pounds.

WRECKAGE AND IMPACT INFORMATION

National Transportation Safety Board - Aircraft Accident/Incident Database

Investigators examined the wreckage at the accident scene. The damage to the airplane was consistent with impact in a right-wing-low, nose-down attitude. There were no ground impact marks around the airplane to indicate any forward momentum. Both fuel tanks exhibited hydraulic deformation in a downward direction and were breached.

The outboard right wing leading edge exhibited tapering compression damage. The left wing was canted forward, and the right wing was canted aft. All primary flight control surfaces and major system components were identified and located at the wreckage site before the wreckage was recovered. The aileron and flap cables were cut by recovery personnel at the wing roots.

MEDICAL AND PATHOLOGICAL INFORMATION

The Utah Department of Health, Office of the Medical Examiner, conducted postmortem examinations of both pilots. The cause of death for both pilots was reported as blunt force injuries.

The Federal Aviation Administration's Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma, performed toxicological testing of specimens of both pilots, which were negative for carbon monoxide, cyanide, volatiles, and tested drugs.

TESTS AND RESEARCH

After the wreckage was recovered, the engine was separated from the main wreckage and placed on a table to facilitate examination and disassembly. The propeller hub remained attached to the engine. Both propeller blades remained straight and exhibited no damage indicative of rotation at the time of impact.

Engine compression and valve train continuity were established. The magnetos produced spark at all leads. The top spark plugs appeared new. The fuel strainer bowl was full of fuel, which tested negative for water, and the strainer screen was clean.

The carburetor was impact displaced and was embedded in the left lower firewall. It was fractured radially at the throttle plate. The float bowl was removed and about 10 drops of fuel were observed and tested using Kolor Kut water disclosing paste with negative results. Hydraulic deformation was observed on one of the floats. All fuel lines were empty of any liquid.

The fuel selector was removed, examined, and determined to be in the "ON" position.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA17LA024	10/19/2016 725 EDT	Regis# N1827Y	Cedar Key, FL	Apt: George T Lewis CDK
Acft Mk/Mdl CESSNA 172-C		Acft SN 17249427	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR O-300D		Acft TT 5013	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: GREENE JOE E		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

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

Narrative

On October 19, 2016, about 0725 eastern daylight time, a Cessna 172C, N1827Y, was substantially damaged when it impacted terrain during an attempt to return to the airport immediately after takeoff from George T. Lewis Airport (CDK), Cedar Key, Florida. The pilot was not injured and the two passengers received minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight. The airplane was privately owned, and was operated under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilot, during takeoff from runway 05, the airplane "wasn't climbing" as he attempted to climb "out of ground effect." At an altitude about 100 feet above ground level, the pilot attempted to return to the airport and land on runway 23. The airplane then descended and impacted a swamp about 600 feet short of the runway. The pilot indicated that the engine sounded normal, and there were no issues with the airplane other than the climb performance.

Two witnesses reported that the pilot had aborted a previous takeoff immediately prior to the accident takeoff. They reported that the airplane's engine was "sputtering" as it accelerated. When it was approximately halfway down the runway, the pilot aborted the takeoff, then turned around and performed the accident takeoff. They indicated that the accident takeoff roll was unremarkable.

According to Federal Aviation Administration (FAA) records, the pilot's certificate status was "revoked", effective July 2005. He had held a commercial pilot certificate with ratings for airplane single and multiengine land, and instrument airplane. He also held private pilot certificate with privileges for airplane single engine sea. His most recent FAA third-class medical certificate was issued in January 2009, at which time he reported a total of 1,800 flight hours of flight experience.

The four-seat, single-engine, high-wing airplane was manufactured in 1962, and was equipped with a Continental O-300D, 145-horsepower reciprocating engine. According to the pilot, its most recent annual inspection was completed on October 3, 2015, at 5,013 total aircraft hours, and 1,031 hours since engine overhaul. The airplane's maintenance logbooks were not recovered.

CDK was located at an elevation of 11 feet mean sea level, and was surrounded by water. The airport was equipped with one asphalt runway, oriented 05/23, which measured 2,355 feet long by 100 feet wide.

Examination of the airplane by an FAA inspector revealed that it came to rest upright and partially submerged in shallow water. The outboard 3 feet of both wingtips were crushed aft and bent upwards. Both ailerons were damaged. The fuselage was buckled on the right side in the area of the cabin door, and the firewall was damaged. The airplane was further damaged during the recovery operation due to being submerged in water. The engine's crankshaft was rotated by hand via the propeller, and compression was confirmed on all cylinders with the exception of the No. 4 cylinder. Valve action was observed on all rocker arms; however, the exhaust valve on the No. 4 cylinder was found stuck in the open position. The top spark plugs were removed. Their electrodes were intact, and slightly corroded with surface rust consistent with water immersion.

The pilot reported that the fuel tanks were nearly full, as the airplane had flown one flight leg (about 20 minutes long) since the last full fueling. The airplane was equipped with an 18-gallon auxiliary fuel tank that was installed in the baggage compartment, which was also full. According to first responders, there was an estimated 25 pounds of baggage found in the unoccupied rear seat.

According to the owner's manual, the maximum allowable gross weight for the airplane was 2,250 pounds. The airplane's weight at the time of the accident was estimated to be 2,307 pounds based on the available weight and balance data for the airplane, fuel records, and self-reported occupant weights. The center of gravity was estimated to be 90.6 pound-inches, which was slightly forward of the maximum gross weight forward limit of 91.

National Transportation Safety Board - Aircraft Accident/Incident Database

Takeoff performance data found in the airplane owner's manual indicated that a maximum gross weight takeoff at sea level and 59 degrees F would require a ground roll of 825 feet, with a distance of 1430 feet require to clear an obstacle 50 feet tall.

Crystal River Airport, Crystal River Florida, was located about 30 nautical miles southeast of the accident site, at an elevation of 9 feet. At 0715 the reported weather included wind calm, temperature 17 degrees C (62 F), dew point 17 degrees C (62 F), and an altimeter setting of 30.06 inches of mercury.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA556 09/16/2017 1100 CDT Regis# N5146R Gallatin, TN Apt: Sumner County Rgnl M33
Acft Mk/Mdl CESSNA 172-M Acft SN 17263363 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: NASHVILLE FLIGHT SCHOOL LLC Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA530 09/11/2017 1125 EDT Regis# N54463 Plainville, CT Apt: Robertson Field 4B8
Acft Mk/Mdl CESSNA 172-P Acft SN 17274979 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: INTERSTATE AVIATION INC. Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA568 09/27/2017 1430 CDT Regis# N65956 Tea, SD Apt: Marv Skie-lincoln County Y14
Acft Mk/Mdl CESSNA 172-S Acft SN 172S9829 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: MIGHTYFLY SD INC Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA283	05/02/2017 935 EDT	Regis# N704RB	Atlanta, GA	Apt: Dekalb-peachtree PDK
Acft Mk/Mdl CESSNA 172-SP		Acft SN 172S9657	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-360-L2A		Acft TT 4234	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: SKYBOUND AVIATION		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

3. Takeoff - Aerodynamic stall/spin

Narrative

The flight instructor reported that he and his student were practicing landings to the runway. He reported that his student's approach was unstable and left of the centerline as the airplane approached the runway numbers. The instructor called for a go-around, and applied full throttle, and the student pitched for a climb but the airplane stalled. The instructor pushed the nose down to increase the airspeed, but the airplane impacted the runway. The airplane sustained substantial damage to both wings and the empennage.

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN17LA241 06/24/2017 930 CDT Regis# N6474B Fulton, MO Apt: N/a
Acft Mk/Mdl CESSNA 172-UNDESIGNAT Acft SN 29674 Acft Dmg: SUBSTANTIAL Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR 0-300-C Acft TT 2666 Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: ON FILE Opr dba: Aircraft Fire: NONE

Summary

The private pilot and two passengers were conducting a local sightseeing flight when the engine "sputtered ever so slightly" and then regained power. Three to 5 seconds later, engine power dropped to about 700 rpm. The pilot checked the engine controls in an attempt to regain engine power; when power was not restored, he initiated a forced landing to a field. During the forced landing, the airplane landed about 3/4 down the length of a field and impacted adjacent trees. During an initial examination, about 1 ounce of water was found in the gascolator. Continuity was established from the cockpit engine controls to the respective engine components. Fuel was found in the carburetor bowl and in the wing fuel tanks. A follow-up engine examination and functional test run did not produce any anomalies that would have prevented normal operation and production of rated horsepower. It is likely the water contamination found in the gascolator resulted in the partial loss of engine power.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The partial loss of engine power due to water contamination in the fuel system.

Events

1. Maneuvering - Fuel contamination
2. Maneuvering - Loss of engine power (total)
3. Emergency descent - Collision with terr/obj (non-CFIT)

Findings - Cause/Factor

1. Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid condition - C
2. Aircraft-Aircraft handling/service-Loading-(general)-Incorrect use/operation

Narrative

On June 24, 2017, about 0930 central daylight time, a Cessna 172 airplane, N6474B, impacted trees during a forced landing following a loss of engine power near Fulton, Missouri. The private pilot and two passengers were not injured, and two passengers sustained minor injuries. The airplane sustained substantial damage to the wings and fuselage. The airplane was owned and operated by a private individual as a 14 Code of Federal Regulations Part 91 personal flight. Visual meteorological conditions prevailed at the time of the accident, and a flight plan was not filed. The local flight departed the Elton Hensley Memorial Airport, Fulton, Missouri, about 0915.

According to the pilot, prior to the local sightseeing flight, he completed a preflight inspection of the airplane. He noted "little to no water" when he sumped the left wing fuel tank, and stated he sumped the right wing fuel tank. The left wing fuel tank contained about 9 gallons of fuel, and the right wing fuel tank contained about 7 to 8 gallons of fuel.

While maneuvering during a local sightseeing flight, the engine "sputtered ever so slightly" and then regained power. About 3 to 5 seconds later, the engine dropped to about 700 RPM. The pilot checked the engine controls in an attempt to regain power. The pilot initiated a forced landing to a field. During the forced landing, the airplane landed about 3/4 down the available length of a field and impacted adjacent trees.

During an initial examination at the accident site by a Federal Aviation Administration (FAA) inspector, the inspector found about 1 ounce of water in the gascolator. Continuity was established from the cockpit engine controls to the respective engine components. Fuel was found in the carburetor bowl and in the wing fuel tanks.

On July 26, 2017, at the recovery facility, the engine was examined by FAA inspectors and a representative of Continental Motors. The engine was visually examined and no anomalies were noted. An external supply of aviation fuel was plumbed into the gascolator on the firewall of the airframe. Due to two broken rear engine mounts, a ratchet strap was used to secure the engine to the airframe engine mount. The engine started normally on the second attempt and allowed to warm up. The throttle was advanced to 1,000 RPMs and a magneto check was performed. Each magneto produced a drop of 50-75 engine RPMs. The engine was advanced to 2,300 RPM, and then back to 1,000 RPM for a second magneto check. The magneto check results were the same as the first magneto check. The throttle was reduced to idle, and the engine was shutdown using the mixture control. According to Continental Motors, the engine

National Transportation Safety Board - Aircraft Accident/Incident Database

examination and functional test run did not produce any anomalies that would have prevented normal operation and production of horsepower.

The airplane was configured to seat and restrain a total of 4 occupants.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR18LA002	10/02/2017 1230 PDT	Regis# N5311H	Tonopah, NV	Apt: N/a
Acft Mk/Mdl CESSNA 172S-S		Acft SN 172S9278	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-360-L2A		Acft TT 1770	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: L-BIRD LLC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

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

Narrative

On October 2, 2017, about 1230 Pacific daylight time, a Cessna 172 airplane, N5311H, was substantially damaged when it impacted a dry river bed near Tonopah, Nevada. The private pilot was not injured. The airplane was registered to and operated by L-Bird, LLC as a personal flight, conducted under the provision of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and a flight plan was not filed for the local flight, which had departed Winnemucca Municipal Airport (WMC), Winnemucca, Nevada and was destined for St. George, Utah.

According to the pilot, he refueled the accident airplane with about 52 gallons of 100 low lead aviation grade gasoline and then departed WMC with three other airplanes. The airplane was flown at an approximate altitude of 1,000 feet above ground level during cruise flight, which was uneventful until the airplane reached a large dry river bed in eastern Nevada. The pilot recounted that the engine began to sputter, a sound that resembled a cylinder misfire. Almost instantaneously, the engine rpm decreased from 2,200 rpm to 1,500 rpm. At the time of the event, the pilot had selected BOTH fuel tanks on the fuel selector and both magnetos were engaged. The pilot then cycled the throttle, which responded normally; however, the engine would not exceed 1,500 rpm when he advanced the throttle. He left the throttle in the full open position and configured the airplane for a precautionary landing by fully extending the flaps. He then completed a 180 degree turn over the riverbed to approach his selected landing zone with a headwind. After the airplane touched down, the pilot applied back pressure to the yoke to keep the nose landing gear from touching down for as long as possible. Once the nose gear settled down, the airplane stopped abruptly, nosed over and came to rest inverted.

A postaccident examination of the airplane by Federal Aviation Administration inspectors revealed substantial damage to the rudder. The debris field was comprised of about 200 feet of main landing gear marks and a nose landing gear impact mark where the airplane came to rest.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA274	05/10/2017 330 CDT	Regis# N34207	Frankston, TX	Apt: Aero Estates T25
Acft Mk/Mdl CESSNA 177-B		Acft SN 17701705	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360-A1F6		Acft TT 7285	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: KESSLER KENNETH E		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

2. Landing-flare/touchdown - Runway excursion

Narrative

The pilot reported that he made an approach to a grass airstrip in light rain conditions with mist. During the landing flare, the airplane encountered a rain shower and the pilot's visibility was obscured. The pilot commenced the landing but he lost visibility of the runway. The airplane touched down left of the runway centerline and veered off the left side of the runway. He recalled that, "By the time I was aware of my position it was not possible to correct," and the airplane impacted the trees. The airplane sustained substantial damage to the both wing spars and engine mounts.

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA475	08/03/2017	1950 AKD	Regis# N5236D	Willow, AK	Apt: N/a
Acft Mk/Mdl CESSNA 180-A			Acft SN 50134	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR O-470 L			Acft TT 4000	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: PAUL M. SPIRO			Opr dba:		Aircraft Fire: NONE
					AW Cert: STN

Events

1. Landing - Dragged wing/rotor/float/other

Narrative

The pilot of the float-equipped airplane reported that, during landing, after observing what he thought were ripples on the water, the airplane touched down sooner than he had expected. Subsequently, the left float skipped on the water, the toe of the right float contacted the water, and the airplane nosed over and came to rest inverted.

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

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA550 09/22/2017 1039 EDT Regis# N9624B Danbury, CT Apt: Danbury Muni DXR
Acft Mk/Mdl CESSNA 180-A Acft SN 32921 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: BUTLER, JEFFREY T. Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA230	04/12/2017 1051 PDT	Regis# N7945V	Manchester, CA	Apt: N/a
Acft Mk/Mdl CESSNA 180-H		Acft SN 18051845	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL O-470-50		Acft TT 5145	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: CAMERON C. LEWIS		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Enroute-cruise - Fuel exhaustion

Narrative

The pilot reported that, during cruise flight, the engine "quit" while at 1500 ft above the ground. He added that he landed the airplane in a large, flat pasture, but during the landing the airplane nosed over.

In a telephone conversation with the recovery specialist, he reported that the fuel tanks had not been breached during the landing, and he recovered 1.5 gallons of fuel from the right fuel tank and 2.5 gallons of fuel from the left fuel tank.

The airplane was equipped with a J. P. Instruments (JPI) engine monitoring unit. The data downloaded from the unit revealed that on the accident flight, the recorded data spanned about 1 hour and 13 minutes. The data showed a sudden decrease in exhaust gas temperatures (EGT) and cylinder head temperatures (CHT) for all cylinders about the same time. For further information, see the JPI Engine Monitoring Unit data plot within the public docket for this accident.

The 1967 Cessna 180 Owner's Manual states, in part:

"2.5 gallons each tank unusable in normal flight maneuvers."

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA547	09/21/2017 1300	Regis# N180SA	Albuquerque, NM	Apt: Double Eagle II AEG
Acft Mk/Mdl CESSNA 180-H		Acft SN 18051903	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: LARRY C. GREGORY		Opr dba:		Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR17LA210	09/20/2017 1314 PDT	Regis# N7330E	Sacramento, CA	Apt: Sacramento Executive SAC
Acft Mk/Mdl CESSNA 210-F		Acft SN 57030	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl CMI IO-470			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MUNTHER MASSARWEH		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Landing-landing roll - Landing gear collapse

Narrative

On September 20, 2017, at 1314 Pacific daylight time, a Cessna 210F, N7330E, sustained substantial damage to the left horizontal stabilizer after the landing gear collapsed while landing at Sacramento Executive Airport, Sacramento, California. The private pilot and pilot rated passenger were not injured, the airplane sustained substantial damage. The airplane was registered to and operated by the pilot/owner under the provisions of 14 Code of Federal Regulations (CFR) Part 91 as a personal flight. The local flight departed 1310. Visual meteorological conditions prevailed and no flight plan had been filed.

The pilot had recently purchased the airplane, and this was his first flight. His intention was to perform a flight in the traffic pattern and then a touch-and-go landing. He reported that the takeoff and flight were uneventful, and that the landing gear was extended during the downwind portion of the landing approach. The passenger stated that after the gear extended, he observed the green landing gear indicator illuminate, and both occupants reported visually confirming the gear had extended by viewing through the gear mirrors.

During the landing roll, the airplane began to veer to the left, and the passenger reached for the controls and attempted to apply right aileron and rudder inputs, however, the airplane then dropped onto its belly. Post-accident examination revealed that the main landing gear had partially collapsed into the wheel wells, and the nose gear remained extended.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA291	05/19/2017 2100 PDT	Regis# N6203S	Carson City, NV	Apt: Carson CXP
Acft Mk/Mdl CESSNA T182		Acft SN T18208285	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING TIO-540-AK1A		Acft TT 1455	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BRAGGER OSWALD E A		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

2. Landing-flare/touchdown - Aerodynamic stall/spin

Narrative

The pilot reported that he was conducting a night flight to comply with the night takeoff and landing experience requirements specified in Title 14 Code of Federal Regulations Part 61.57 (b). On his second approach the airplane encountered wind shear during the landing flare. The airplane was blown about 400 nose left of the runway centerline. The pilot tried to correct to the right, but the airplane stalled and landed hard. The nose landing gear tire separated from the wheel and the airplane bounced. The airplane settled on the runway and a propeller strike occurred as the airplane slid off the left side of the runway. After the runway excursion, the nose landing gear wheel burrowed into the dirt surface and the airplane nosed over. Substantial damage was sustained to both wings, and the empennage.

The METAR reported that the wind about the time of the accident was from 0500 at 8 kts. Critical wind shear or low-level wind shear were not observed at any time during the day or night per the METAR on the date of the accident.

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA533	09/12/2017 1015 PDT	Regis# N946CA	Silver Springs, NV	Apt: Silver Springs SPZ
Acft Mk/Mdl CESSNA T182T		Acft SN T18208891	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
		Acft TT 1554	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: CIVIL AIR PATROL		Opr dba:		Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA549 08/30/2017 2030 AKD Regis# N734GW Tok, AK
Acft Mk/Mdl CESSNA U206-G Acft SN U20604832 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 135
Opr Name: Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN17LA359	08/10/2017 1614	Regis# N702N	Raton, NM	Apt: Raton Municipal Airport RTN
Acft Mk/Mdl CIRRUS DESIGN CORP SR22T-NO SERIES	Acft SN 1494	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR TSIO-550-K	Acft TT 165	Fatal 0	Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: QUINTON HOLDINGS CORPORATION, LLC	Opr dba: ROTARYSWING GOLF, LLC	Aircraft Fire: NONE	AW Cert: STN	

Events

1. Landing - Loss of control in flight

Narrative

On August 10, 2017, about 1614 mountain daylight time, a Cirrus SR22T airplane, N702N, sustained substantial damage when it veered off the runway while landing at the Raton Municipal Airport (RTN), Raton New Mexico. The private pilot sustained minor injuries and one passenger sustained serious injuries. The airplane was privately owned, and the personal flight was operated under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed throughout the area and an instrument flight rules (IFR) flight plan was filed. The cross-country flight originated from the South Arkansas Regional Airport (ELD), Eldorado, Arkansas, and RTN was its final destination.

The pilot reported that he was checking weather conditions (METARs) at RTN every hour along the route of flight from ELD. The METAR information consistently reflected winds out of the south at no more than 7 knots. Approaching RTN, the pilot had to maneuver around convective activity about 10 miles northwest of the airport. The pilot concealed his IFR flight plan about 6-7 miles from RTN. On approach, about 4 miles from RTN, someone from the FBO radioed on Unicom frequency and stated that the winds were 170 degrees at 7 knots.

The pilot crossed the threshold of runway 20 at full flaps and 85 knots for landing. About 15 feet from touchdown, the airplane began to sink rapidly. The pilot attempted to arrest the descent, but the airplane bounced off the runway and began to be pushed hard to the left side of the runway by the wind. The pilot then initiated a go-around with full throttle and pulled back on the stick. The airplane climbed to about 15-20 feet off the ground as the stall warning went off and the right wing stalled and dropped. The airplane then struck an embankment off the right side of the runway and rolled onto its right side.

The pilot stated that once inside the FBO after the accident, a weather monitor screen showed that the winds were 170 at 7 knots, but it also showed the winds were 160 degrees, variable to 230 degrees. He also saw the windsock fully extended down runway 20. The pilot thought that he had experienced a large wind shear and tailwind shift just prior to touchdown.

The pilot did not report any mechanical or flight control problems prior to the accident. An FAA inspector who examined the airplane after the accident did not find any anomalies with the airplane of flight controls.

National Transportation Safety Board - Aircraft Accident/Incident Database

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA562 09/27/2017 1000 PDT Regis# N515ET Fullerton, CA Apt: Fullerton Muni FUL
Acft Mk/Mdl EUROCOPTER AS 350-B2 Acft SN 3425 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR PUBU
Opr Name: US DEPARTMENT OF JUSTICE Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA16LA255	07/02/2016 1220 EDT	Regis# N666J	Rhinebeck, NY	Apt: Old Rhinebeck NY94
Acft Mk/Mdl FLEET FLEET 16B-NO SERIES		Acft SN 350	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl KINNER B5		Acft TT 44	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: RHINEBECK AERODROME MUSEUM		Opr dba:		Aircraft Fire: NONE

Summary

The commercial pilot stated that, during takeoff from a turf runway, the left main landing gear collapsed but did not separate from the airplane; the pilot continued the takeoff. During the subsequent landing, the airplane touched down, nosed over, and came to rest inverted. Examination revealed that the left main landing gear strut mount nut was stripped, consistent with wear, and the bolt was missing. The airplane was manufactured in 1942, and there was no required inspection for the gear strut mount. The most recent inspection was completed about 38 flight hours before the accident.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: Failure of the gear strut mount nut due to wear.

Events

1. Takeoff - Sys/Comp malf/fail (non-power)
2. Landing - Landing gear collapse

Findings - Cause/Factor

1. Aircraft-Aircraft systems-Landing gear system-Nose/tail gear strut/axle-Fatigue/wear/corrosion - C

Narrative

On July 2, 2016, about 1220 eastern daylight time, a Fleet 16B biplane, N666J, owned and operated by Rhinebeck Aerodrome Museum, was substantially damaged during landing at Old Rhinebeck Airport (NY94), Rhinebeck, New York. The commercial pilot and passenger were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight conducted under the provisions of 14 Code of Federal Regulations Part 91.

The pilot stated that during takeoff from a turf runway, the left main landing gear collapsed but did not separate from the airplane. The pilot was aware of the damaged landing gear, and circled the airport. During the subsequent landing on the departure runway, the airplane touched down, flipped over, and came to rest inverted, which damaged the right upper wing and vertical stabilizer.

The pilot held a commercial pilot certificate with a rating for airplane single engine land, multi engine land, and a flight instructor certificate. The pilot held a first class medical certificate and reported 643 total hours of flying experience. He reported 25 hours of flying time in the accident airplane make and model.

Examination of the wreckage by a Federal Aviation Administration inspector revealed that the left main landing gear strut mount nut that secured the landing gear strut was stripped, and the bolt was missing. Damage consistent with wear was observed on the strut base and the housing. There was no inspection required for the gear strut mount for the Fleet 16B, which was manufactured in 1942. The most recent annual was completed about 38 hours before the accident flight.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA443	07/23/2017 915 EDT	Regis# N48519	Berlin, MD	Apt: Bunting's Field 4MD1
Acft Mk/Mdl GRUMMAN ACFT ENG COR-SCHWEIZER	Acft SN 42B	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual	Prob Caus: Pending
Eng Mk/Mdl PRATT & WHITNEY 985	Acft TT 8400	Fatal 0	Ser Inj 0	Flt Conducted Under: FAR 137
Opr Name: BUNTINGS DUSTING INC	Opr dba:	Aircraft Fire: NONE	AW Cert: SPR	

Events

3. Landing-landing roll - Runway incursion veh/AC/person

Narrative

The pilot reported that he noticed that a spray nozzle was leaking on the agricultural spray airplane. Subsequently, he performed multiple test flights over a nearby field while the head of the ground crew remained on the ground to monitor the leak. He added that he would land the airplane on the grass airstrip, adjust the nozzle, depart for another visual check, and repeat as necessary.

Following the tests and adjustments, the ground personnel told the pilot that the nozzle was not leaking and the pilot returned to land. The pilot reported that, during the landing roll, he did not see the ground personnel visually check the runway before crossing the runway on an all-terrain vehicle (ATV) in front of the airplane. He added that he immediately veered the airplane to the right and sped up to avoid striking the ground personnel with the propeller. The left wing struck the ATV and the ground personnel.

The airplane sustained substantial damage to the left wing leading edge and the ground personnel received minor injuries.

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN17LA333	08/28/2017 906 CDT	Regis# N28005	Carbondale, IL	Apt: N/a
Acft Mk/Mdl GULFSTREAM AMERICAN CORP AA 5B-B	Acft SN AA5B0937	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360-A4K	Acft TT 1506	Fatal 0	Ser Inj 2	Flt Conducted Under: FAR 091
Opr Name:	Opr dba:	Aircraft Fire: NONE		

Events

1. Enroute-cruise - Part(s) separation from AC

Narrative

On August 28, 2017, at 0906 central daylight time, a Gulfstream American Corporation AA-5B airplane, N28005, experienced an in-flight propeller separation in cruise flight and impacted trees and terrain during a forced landing near Carbondale, Illinois. The pilot and passenger sustained serious injuries, and the airplane sustained substantial damage. The airplane was privately owned and operated under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed at the time of the accident, and a visual flight rules flight following flight plan was filed. The flight departed Louisville, Kentucky, at an unknown time, and was destined for Oklahoma City, Oklahoma.

According to the Federal Aviation Administration inspector who responded to the accident site, the airplane was in cruise flight when the pilot reported an engine failure to air traffic control. The pilot initiated an emergency descent and attempted to land at the Southern Illinois Airport (MDH), Carbondale, Illinois. The pilot was unable to land at MDH and executed a forced landing to a field near Carbondale. During the forced landing, the airplane impacted trees and terrain, and came to rest upright. The airplane sustained substantial damage to both wings and fuselage. The propeller, spinner, and spinner bulkhead were missing from the airplane wreckage.

A home owner, located about 9 miles south of the accident site, found a separated section of an airplane propeller in the residence's yard. The separated section of the fixed-pitch propeller included one blade and about 1/2 of the propeller hub. The propeller section was recovered by law enforcement and returned to the accident site. A review of the airplane records, which were located in the airplane, revealed the separated propeller section matched the propeller model installed on the accident airplane.

The airplane and propeller section were recovered for further examination.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR14LA340	08/11/2014 1130 PDT	Regis# N7432F	Darrington, WA	Apt: N/a
Acft Mk/Mdl HUGHES 269C		Acft SN 160458	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING HIO-360-D1A		Acft TT 3015	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: SNOHOMISH FLYING SERVICE INC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Enroute-descent - Loss of engine power (partial)

Narrative

On August 11, 2014, about 1130 Pacific daylight time (PDT), a Hughes 269C Helicopter, N7432F, impacted terrain following a partial loss of engine power near Darrington, Washington. The airline transport pilot was not injured; the helicopter sustained substantial damage. Snohomish Flying Service (SFS) was operating the helicopter under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The local personal flight departed Snohomish, Washington, about 0815. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot reported that during a flight in the rented helicopter he was descending out of 5,000 ft. As he approached 4,000 ft, he increased collective and noticed that the engine was slowing down; he was unable to recover the engine rpm to a normal range. The helicopter continued to descend until the pilot entered an autorotation. The helicopter impacted a tree about 30 ft high and then came to rest in a small stream.

The pilot stated he did not believe the engine ever quit, but the engine would not produce enough power to continue flight.

The helicopter was recovered on August 12, 2014, by SFS and examined by Federal Aviation Administration inspectors with assistance from SFS personnel. They found that the throttle mount bracket was hanging by the throttle cable linkage and was not secured to the servo mount studs as it should have been. This would prevent the loss of throttle movement for acceleration.

The operator stated that the engine had just been installed into the helicopter 10 flight hours prior to the accident.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN17LA229 06/10/2017 1320 CDT Regis# N7482F Tallulah, LA Apt: Vicksburg Tallulah Regional TVR
Acft Mk/Mdl HUGHES 269C Acft SN 170576 Acft Dmg: SUBSTANTIAL Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING HIO-360-D1A Acft TT 3193 Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: JAMES R WADE, JR Opr dba: Aircraft Fire: NONE

Summary

The commercial pilot reported that the helicopter's engine start and run-up were normal. At full power for takeoff, the helicopter began to vibrate. The pilot "rolled the throttle off" and lowered the collective; however, the vibrations became worse and the helicopter "began to destroy itself." He reported that he had not re-centered before the cyclic trim before takeoff as noted on the checklist, and it remained at a nearly full-forward position from the previous flight. He noted that if the cyclic had been centered, the vibrations would have stopped. However, with the trim full forward, the rotor blades began hitting the stops, causing the vibrations. The pilot added that there were no malfunctions or failures with the helicopter before the accident.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot's failure to reset the cyclic trim before takeoff, which resulted in ground resonance.

Events

1. Takeoff - Ground resonance

Findings - Cause/Factor

1. Personnel issues-Task performance-Use of equip/info-Use of checklist-Pilot - C
2. Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C

Narrative

On June 10, 2017, about 1320 central daylight time, a Hughes 269C helicopter, N7482F, was substantially damaged during a ground resonance event at the Vicksburg Tallulah Regional Airport (TVR), Tallulah, Louisiana. The pilot was not injured. The helicopter was registered to Wade and Son, Inc., and operated by the pilot as a 14 Code of Federal Regulations Part 91 instructional flight. Day visual meteorological conditions prevailed at the accident site. The flight was not operated on a flight plan. The local flight was originating at the time of the accident.

The pilot reported that the cyclic trim was not re-centered before takeoff as noted on the checklist. Instead, it remained at a nearly full forward position from the previous flight. The engine start and run-up were normal. At full power for takeoff, the helicopter began to vibrate. The pilot "rolled the throttle off" and lowered the collective; however, the vibrations became worse and the helicopter "began to destroy itself." He noted that if the cyclic had been centered, the vibrations would have stopped. However, with the trim full forward, the rotor blades began hitting the stops causing the vibrations. The pilot added that there were no malfunctions or failures with the helicopter before the accident.

The helicopter came to rest upright on the airport ramp. A postaccident examination revealed that the engine had partially separated from the airframe and the main rotor gearbox had separated from the rear bulkhead. The landing skid dampers appeared intact, with no visible damage or fluid leakage.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA566 09/30/2017 1530 CDT Regis# N260BA Hampshire, IL Apt: Sky Soaring 55LL
Acft Mk/Mdl LET L 23 SUPER BLANIK-NO Acft SN 928010 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: SKY SOARING INC Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA17FA327	09/16/2017 1300 EDT	Regis# N53CP	North Branford, CT	Apt: N/a
Acft Mk/Mdl MOONEY M20C		Acft SN 2663	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-360-B1B			Fatal 2 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: DUNDAS CHARLES P		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Enroute - Loss of engine power (total)

Narrative

On September 16, 2017, at 1300 eastern daylight time, a Mooney M20C, N53CP, was substantially damaged when it collided with trees and terrain near North Branford, Connecticut. The airline transport pilot, who was also the owner of the airplane, and one passenger were fatally injured. The airplane was operated under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed, and no flight plan was filed for the flight that originated from Robertson Field Airport (4B8), Plainville, Connecticut, and was destined for Francis S Gabreski Airport (FOK), Westhampton Beach, New York.

Earlier on the day of the accident about 1000, the pilot/owner flew from FOK north to 4B8, where he planned to pick up his passenger for a subsequent flight back to FOK. The route of flight was about 60 miles. The pilot and passenger had been flying together for over 10 years and had flown the route many times.

At 1109, the airplane was fueled with 15.8 gallons of 100 low-lead aviation gasoline; 9 gallons in the right wing tank and 6.8 gallons in the left wing tank. After he topped-off both fuel tanks per the pilot's request, the fueler witnessed the pilot sample the fuel in the airplane's fuel system, before he departed with his passenger about 1230.

Several witnesses near the accident site stated that they did not see the airplane or hear any engine sounds, but they heard what sounded like a "crash" in the trees. One witness described it as the sound of "gravel being dumped out of a dump truck." Several homeowners searched for the source of the sound and found the airplane wreckage about 1 hour after hearing the impact.

The pilot held an airline transport pilot certificate with a rating for airplane multiengine land. He held a commercial pilot certificate with ratings for airplane single-engine land and airplane single-engine sea. He also held a flight instructor certificate with a rating for instrument airplane. In addition, he held a mechanic certificate with airframe and powerplant ratings. According to Federal Aviation Administration (FAA) airman records, the pilot reported a flight experience of 31,300 total hours as of his last medical exam, dated October 16, 2006.

According to FAA airworthiness records, the airplane was issued a standard airworthiness certificate on September 4, 1964. The airplane was a low wing, four-seat, monoplane of conventional metal construction. It was equipped with retractable landing gear, and was powered by an air cooled, Lycoming IO-360, 180-horsepower engine, driving a Hartzell 3-blade constant-speed propeller.

At 1353, the weather conditions reported at Tweed-New Haven Airport (HVN), New Haven, Connecticut, which was located at 12.5 ft elevation, 9 miles southwest of the accident site, included variable wind at 3 knots, visibility 10 statute miles, broken clouds at 1,400 ft, temperature 24°C, dew point 19°C, and an altimeter setting of 30.16 inches of mercury.

Examination of the accident site revealed that the airplane first struck 75-ft-tall pine trees in a steep descending attitude before coming to rest up against trees in a nose-down position on its right side. The wreckage path was 170 ft-long and oriented on a north-northeast magnetic heading of 021°. The right wing separated from the fuselage at the wing root during impact, and was the first piece of wreckage discovered at the start of the debris path. The outboard 3 feet of the left wing was found 75 ft north of the right wing and was wrapped around a tree. The remaining fuselage, cockpit, left wing and tail assembly remained intact. The landing gear were in the extended position and the landing gear selector was in the down detent. The wing flaps were in the retracted position.

The right fuel tank was breached during the accident and evidence of fuel was found on the trees and vegetation near the initial impact point. The left fuel tank contained approximately 7.5 gallons of fuel. Visual examination through the firewall indicated that the fuel selector in was in the left fuel tank position.

The engine remained attached to the mounts and remained largely intact. All cylinders remained attached to the crankcase and there were no broken fuel lines or oil lines discovered at the scene. The engine oil was measured using the dip stick and it was at the full indication

The three-blade constant-speed propeller remained attached to the crankshaft flange and was largely intact. There was no evidence of rotational scoring and two of the blades were not damaged. One of the blades was bent aft about 30° and the propeller spinner was crushed on one side.

The wreckage was retained for further examination.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA17CA149	04/08/2017 1340 EDT	Regis# N3167G	Culpepper, VA	Apt: Culpeper Regional Airport CJR
Acft Mk/Mdl NORTH AMERICAN T 6G-G		Acft SN 49-3272	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl PRATT & WHITNEY R-1340-AN1		Acft TT 8875	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: SEJ WARBIRDS, LLC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

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

Narrative

The pilot stated that after a thorough preflight inspection and passenger briefing, he started the engine and noted that there was an 80ø left crosswind at 5 kts, with gusts to 15 kts. He performed an engine run-up and checked the flight controls, then departed to fly around the local area for about 20 minutes. He then returned to the departure airport, and because the airplane was only equipped with a single radio and traffic congestion, he did not monitor the weather or ask for a wind check. He performed a "high break" at traffic pattern altitude and while on final approach with the flaps fully extended, he maintained a left wing low attitude to correct for the left crosswind. He performed a wheel landing, but as the tailwheel was lowering, the left wing raised "dramatically" and the right wingtip contacted the runway. He added power to abort the landing, but because the right wing was contacting the runway, the airplane pivoted to the right. The airplane went off the right side of the runway and nosed over. The pilot indicated there were no preimpact mechanical failures or malfunctions of the airframe or engine that would have precluded normal operation. The reported wind conditions about 5 minutes before the accident included a crosswind that was variable between 80ø and 170ø left of the selected runway heading, at a velocity of 8 kts, with gusts to 16kts.

National Transportation Safety Board - Aircraft Accident/Incident Database

Rpt# GAA17CA560	09/27/2017 1400 EDT	Regis# N38633	Geneseo, NY	Apt: Geneseo D52
Acft Mk/Mdl PIPER J5A-UNDESIGNAT		Acft SN 5-1016	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: PETER BONNEAU		Opr dba:		Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA569 09/25/2017 1400 AKD Regis# N3797Z Beluga, AK Apt: N/a
Acft Mk/Mdl PIPER PA 18-150 Acft SN 18-7492 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: MERRINER SCOTT L Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR15LA149 04/17/2015 1615 PDT Regis# N162SC La Quinta, CA Apt: N/a
Acft Mk/Mdl PIPER PA 18-150-A150 Acft SN 18-7759 Acft Dmg: SUBSTANTIAL Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320 SERIES Acft TT 2762 Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: BONKERS AVIATION LLC Opr dba: LAS VEGAS BANNER TOW Aircraft Fire: NONE
AW Cert: STN

Summary

The commercial pilot reported that, while orbiting during a banner tow flight, the airplane began to shake violently and lose altitude. The pilot reduced power to idle, which alleviated the violent shaking, and released the banner over an empty fairway at a golf course. While advancing the throttle after dropping the banner, he noted that the severe vibration returned, and the airplane was unable to maintain altitude. The pilot selected the next empty fairway as a forced landing site, but the landing area had significant elevation changes. The airplane touched down on a plateau and could not be stopped before reaching a large drop-off. The airplane bounced before contacting the ground sideways and came to rest inverted. Postaccident examination of the airplane revealed that a piece of one propeller blade tip had separated; this piece was not located. The fracture likely originated from a fatigue crack in a deformed area on the propeller blade. Marks consistent with use of an orbital grinder overlapped hand finishing lines in the deformed material, suggesting multiple machining operations were employed during overhaul/repair of the propeller, none of which fully removed the deformed material. The airplane had flown about 66 hours since the last recorded inspection; no inspection or overhaul entry specified any work on a propeller blade deformation.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: Maintenance personnel's failure to properly repair a propeller deformation, which resulted in a fatigue crack, separation of a propeller blade tip, and forced landing onto uneven terrain.

Events

1. Maneuvering - Sys/Comp malf/fail (non-power)
2. Landing-landing roll - Off-field or emergency landing

Findings - Cause/Factor

1. Aircraft-Aircraft propeller/rotor-Propeller system-Propeller blade section-Fatigue/wear/corrosion - C
2. Personnel issues-Action/decision-Action-Incorrect action performance-Maintenance personnel - C
3. Environmental issues-Physical environment-Terrain-Sloped/uneven terrain-Contributed to outcome

Narrative

HISTORY OF FLIGHT

On April 17, 2015, about 1615 Pacific daylight time, the pilot landed a Piper PA-18-150, N162SC, off airport near La Quinta, California. The pilot/owner was operating the airplane under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The commercial pilot sustained minor injuries; the airplane sustained substantial damage. The local banner tow flight departed Bermuda Dunes (UDD), California, at 1531. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot stated that the airplane was in left orbit over the advertising destination at 1,200 ft agl when it began to shake violently, and lose altitude. The pilot immediately initiated a right turn away from the banner pattern, and reduced power to idle which alleviated the violent shaking. The pilot then made an emergency radio call on the Bermuda Dunes common traffic advisory frequency, began looking for a safe place to drop the banner, and maneuvered to release it over an empty fairway at a golf course at 600 ft agl.

The pilot advanced the throttle, and noted that the severe vibration returned at the higher engine rpm. Neither a climb nor level flight was achievable. After pulling the mixture and checking that the seat belt was tight, the next empty fairway was selected as the landing site. The pilot engaged full flaps, and proceeded to forward slip the airplane in order to make a touchdown in the empty fairway. About 100 to 200 ft agl, the pilot noted that the landing area had significant elevation changes, but it was too late to select another landing area. The airplane touched down on a plateau at 60 knots indicated airspeed (KIAS), but could not be stopped prior to a 10-foot drop-off. The airplane became airborne, and bounced down at the next plateau, which was the green. The airplane did not stop despite full application of the brakes. The pilot noted a tree line about 20 yards away with residential housing behind it. The airplane became airborne again, and the pilot attempted a 90° turn to avoid crossing the tree line and impacting a house. The airplane contacted the ground sideways; it rolled at a 45° angle (to the 2-o'clock position) onto its back, and came to rest inverted. The pilot released the seatbelt, and exited the airplane.

TESTS AND RESEARCH

The National Transportation Safety Board (NTSB) investigator-in-charge and an inspector from the Federal Aviation Administration examined the wreckage. Several inches of one propeller blade tip was missing, and not located. The fracture surface was flat, and this blade tip was sent to the NTSB Research and Engineering Materials Laboratory for examination. No anomalies with the airframe or engine were noted that would have precluded normal operation. One magneto was sent to a shop for examination, and it passed functional checks.

ADDITIONAL INFORMATION

Blade Tip Examination

The NTSB Materials Laboratory specialist reported that the fracture surface on the separated blade was generally flat with a finely textured appearance and a unified crack front consistent with fatigue crack progression. The fatigue cracking had propagated through approximately 83% of the blade cross-section. Overstress separation covered the remaining 17% of the blade fracture surface. The fatigue cracking appeared to initiate from one general area on the pressure side of the blade, which contained an anomaly.

The anomaly appeared to consist of deformed material. Parallel lines consistent with hand finishing were on the external surface of the blade, and overlapped into the deformed material. There were also thinner circular lines on the surfaces of the blade that were consistent with machining marks from an orbital grinder that overlapped the hand finishing lines. Examination with a scanning electron microscope revealed feathery features and striations consistent with fatigue cracking on the fracture surface emanating from the pressure side of the blade in the area of the anomaly. No contamination was observed at the fatigue initiating site.

Propeller Logbook

A review of the propeller logbook revealed that it was overhauled on June 13, 2011; it was installed on the accident airplane on June 19, 2011. An annual inspection dated March 1, 2014, recorded 281.9 hours since overhaul. On October 23, 2014, the propeller was removed at 393.6 hours since overhaul; it was installed back onto the airplane on October 30. An entry dated February 23, 2015, was for an annual inspection, which indicated that the propeller had been dynamically balanced, inspected, and was in an airworthy condition. The time recorded since overhaul was 380.3 hours, but correlation with tachometer entries determined that it should have been 480.3 hours since overhaul. The tachometer read 948.68 at the wreckage examination. No entry, including the overhaul entry, indicated any work to a deformed area on the propeller.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN17LA372	09/28/2017 1716 CDT	Regis# N7336Z	Westphalia, KS	Apt: N/a
Acft Mk/Mdl PIPER PA 25-235-UNDESIGNAT		Acft SN 25-3285	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING 0-540 SERIES			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 137
Opr Name: ON FILE		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPR

Events

1. Maneuvering-low-alt flying - Loss of engine power (total)

Narrative

On August 28, 2017, at 1716 central daylight time, a Piper PA-25-235 airplane, N7336Z, impacted terrain following a loss of engine power while maneuvering at low altitude near Westphalia, Kansas. The commercial pilot, who was the sole occupant, was not injured, and the airplane sustained substantial damage. The airplane was registered to and operated by a private individual. The aerial application flight was conducted under the provisions of 14 Code of Federal Regulations Part 137. Visual meteorological conditions prevailed, and no flight plan had been filed for the flight. The local flight departed the Garnett Municipal Airport (K68), Garnett, Kansas, about 1645.

According to the Federal Aviation Administration inspector who spoke to the pilot, the airplane departed K68 with full fuel and chemical for the aerial application flight. After spraying a field for about 20 minutes, the engine lost power. The pilot initiated a forced landing to a field. About 5 feet above the field, the airplane stalled and impacted terrain. The airplane sustained substantial damage to the left wing.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR17FA215	09/29/2017 2213 PDT	Regis# N9549W	Brinnon, WA	Apt: N/a
Acft Mk/Mdl PIPER PA 28-140-140		Acft SN 28-22981	Acft Dmg: DESTROYED	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING 0-320 SERIES		Acft TT 5495	Fatal 1 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: SHELTON FLIGHT		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Enroute-cruise - Unknown or undetermined

Narrative

On September 29, 2017, about 2213 Pacific daylight time, a Piper PA-28-140, N9549W, was destroyed when it impacted trees and terrain near Brinnon, Washington during a night cross-country flight. The student pilot received serious injuries, and the certificated flight instructor (CFI) received fatal injuries. The instructional flight was conducted in accordance with visual flight rules (VFR) under the provisions of Title 14 Code of Federal Regulations Part 91.

According to the pilot who flew the airplane just prior to the accident pilots, the airplane was based at Sanderson Field airport (SHN), Shelton, Washington (WA), and was owned and operated by the flying club "Shelton Flight." That pilot stated that he and his son flew the airplane for about an hour, and the airplane operated normally, with no irregularities or problems. After landing, they topped off the fuel tanks with 7.6 gallons of fuel, and turned the airplane over to the accident pilots about 2000. Although it appears that the accident pilots did not file a flight plan and were not in radio communication with any Federal Aviation Administration (FAA) air traffic control facilities on any of the three flight legs they flew that night, FAA ground-based tracking radar captured most portions of those three legs, including the accident leg. According to the radar data, the airplane departed SHN about 2050, and headed generally northeast towards Snohomish County Airport (Paine Field, PAE), Everett, WA. The airplane arrived at PAE about 2130, where the radar data is consistent with a touch and go landing. The airplane then departed PAE and flew about 23 miles west to Jefferson County International Airport (OS9) Port Townsend, WA. The radar data is consistent with a touch and go landing at OS9 about 2156. The radar data then depicts the airplane departing OS9 and flying a ground track on a direct course towards SHN. The airplane climbed to a maximum radar-indicated altitude of 3,850 feet, and then descended and leveled off at about 3,300 feet. The radar track ended about 18 miles south of OS9. The last radar return was obtained at 2212:23, about 1,250 feet north of the accident location, and at an indicated altitude of 3,250 feet. About 2238, the student pilot telephoned 911 to summon help; this was the first notification that the airplane was missing or had crashed.

First responders reached the wreckage about 0500 the next morning, and the student pilot was airlifted from the scene by a US Navy helicopter a few hours later. Investigation and recovery personnel accessed the accident site two days after the accident. The accident location was coincident with a straight line connecting OS9 to SHN. The wreckage was situated on a heavily wooded slope in the Olympic National Forest. Most trees appeared to be pine, with trunks up to about 18 inches in diameter, and heights of 75 feet or more. Site elevation was about 3,075 feet. A partial swath of tree strikes by the airplane was observed, with an approximate heading of 110ø, and a descent angle of about 30ø.

The fuselage came to rest upright, on an approximate heading of 180ø, at about a 30ø airplane nose down angle, with the aft end partially supported by vegetation. The engine remained attached to the fuselage. The propeller remained attached to the engine, and both were partially embedded in the soil. The cockpit volume was compromised by crushing in the aft direction. Both fuel tanks were breached, and no fuel was observed at the time of the site examination. Both wings and the left horizontal stabilizer were fracture-separated from the fuselage. All aerodynamic and flight control surfaces appeared to be present at the accident site. The key remained in the ignition switch, which was set to the "BOTH" position. The cockpit fuel selector valve handle was found set to the right fuel tank. The tachometer registered 5,495.38 hours. The 121.5 Mhz emergency locator transmitter (ELT) was found still attached to its antenna cable, and the switch was found in the "AUTO" (armed) position. The wreckage was recovered to a secure facility for subsequent detailed examination.

The student pilot obtained his FAA third-class medical certificate in September 2015. He had logged 44.5 hours of flight time, not including the accident flight, in his personal logbook. His first flight was in December 2016, and all except one flight were conducted in the accident airplane. The CFI was a retired airline pilot

National Transportation Safety Board - Aircraft Accident/Incident Database

with multiple type ratings. Insurance application information indicated that he had a total flight experience of over 27,000 hours, including more than 2,000 hours in fixed-gear, single-engine airplanes. Neither his flight instruction nor PA-28 experience was available at the time of this report.

FAA information indicated that the airplane was manufactured in 1967, and that it was purchased by Shelton Flight in August 2015. Maintenance records indicated that the airplane was equipped with a Lycoming O-320-E2A series engine. The engine was overhauled and installed in the accident airplane in October 1994, at which time the airplane tachometer registered 4,791.0 hours. The most recent annual inspection was completed in September 2017, at which time the airplane tachometer registered 5,461.9 hours.

The OS9 2215 automated weather observation included winds from 130 degrees at 4 knots, visibility 10 miles, overcast skies at 4,200 feet, temperature 12 degrees C, dew point 11 degrees C, and an altimeter setting of 30.06 inches of mercury.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA16LA192 05/19/2016 1320 EDT Regis# N7781W Batavia, NY Apt: Genesee County GVQ
Acft Mk/Mdl PIPER PA 28-180 Acft SN 28-1788 Acft Dmg: SUBSTANTIAL Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360-A3A Acft TT 3284 Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: PATRICK J. HEALY Opr dba: Aircraft Fire: NONE
AW Cert: STN

Summary

The student pilot successfully performed two touch-and-go landings and returned to the same runway to perform a third. He reported that, after a normal touchdown, he applied engine power, and at rotation speed the airplane veered to the left. He was unable to correct with right rudder input. The airplane subsequently traveled off the side of the runway and impacted signs, which resulted in damage to both left and right wing fuel tanks. The pilot continued the takeoff, and, after becoming airborne, noted fuel streaming from the left fuel tank; the engine subsequently experienced a total loss of power. The pilot maneuvered the airplane and landed uneventfully on a road. Postaccident examination of the airplane revealed no evidence of preimpact mechanical malfunctions or failures that would have precluded normal operation. Neither fuel tank contained fuel, and it is likely that the loss of engine power was the result of fuel exhaustion caused by the breaches of the fuel system.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The student pilot's failure to maintain directional control during takeoff, which resulted in a collision with runway signs.

Events

1. Takeoff - Loss of control on ground
2. Takeoff - Collision with terr/obj (non-CFIT)
3. Takeoff - Miscellaneous/other
4. Takeoff - Fuel exhaustion
5. Emergency descent - Loss of engine power (total)

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-Student/instructed pilot - C

Narrative

On May 19, 2016, about 1320 eastern daylight time, a privately owned and operated Piper PA-28-180, N7781W, was substantially damaged during landing at Genesee County Airport (GVQ), Batavia, New York. The student pilot was not injured. Visual meteorological conditions prevailed at the time and no flight plan was filed for the instructional flight that was conducted under the provisions of 14 Code of Federal Regulations Part 91. The flight originated about 1300 from Akron Airport (9G3), Akron, New York.

The student pilot stated that he departed from 9G3 and flew to GVQ where he performed two uneventful touch-and-go landings on runway 28. During a third touch-and-go landing he landed uneventfully, retracted the flaps, and added engine power. He was utilizing some right rudder input as the airplane reached rotation speed (approximately 70 mph), and "pulled hard to the left," which he could not correct with full application of right rudder. As the airplane approached the left side of the runway, he noted runway signage, but because the airplane was at takeoff speed, he thought climbing above the signs would result in a safer outcome and continued the takeoff. The airplane departed the left side of the runway and while attempting to clear the signage off the left side of the runway, both wings collided with separate signs, which breached both fuel tanks. The pilot continued the takeoff and while turning left to land on a nearby road, he noted fuel streaming from the left fuel tank and the engine lost power. He flew under one set of powerlines and then over a second set before landing uneventfully on the road.

Examination of the airport and airplane by a Federal Aviation Administration inspector revealed browning of grass beyond both impacted airport signs, and for a short distance past the point where the airplane became airborne. Both fuel tanks were breached; neither contained any fuel. Flight control continuity was confirmed for all flight controls. Examination of the impacted airport signs revealed their posts were frangible.

The pilot reported the wind to be from north at 8 mph with no gusts, while a weather observation taken about 26 minutes before the accident at an airport located about 22 nautical miles east-northeast from GVQ reported the wind was from 280° at 9 knots.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR15LA217 07/19/2015 1320 PDT Regis# N8740E Las Vegas, NV Apt: Henderson Exec KHND
Acft Mk/Mdl PIPER PA 28-181 Acft SN 28-7690195 Acft Dmg: DESTROYED Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O&VO-360 SER Acft TT 4040 Fatal 0 Ser Inj 4 Flt Conducted Under: FAR 091
Opr Name: STUCKEY JODY L Opr dba: Aircraft Fire: GRD
AW Cert: STN

Summary

The private pilot reported that the takeoff seemed normal, but once airborne, the airplane's climb was "sluggish," and the engine rpm was between 200 and 300 rpm lower than normal. He was able to maintain straight and level flight at 300 ft above ground level. When the pilot made a left turn in an attempt to return to the airport, the airplane immediately began to lose altitude. The pilot subsequently landed in an open construction site. During the landing sequence onto uneven terrain, the landing gear was torn off, and the airplane caught fire, which subsequently consumed the airplane. During postaccident examination of the engine, as the crankshaft was rotated by hand, the travel of the intake valve rockers was about 50% less than normal. Disassembly of the engine revealed wear on the intake lobes of the camshaft and spalling damage on the faces of the tappets. The decreased travel of the intake valves would have reduced the amount of fuel/air mixture allowed into each cylinder, which reduced the overall power the engine could produce. A review of maintenance records revealed that the engine was last overhauled 28 years before the accident and had accumulated 1,461 hours since overhaul. The engine manufacturer recommended that the engine be overhauled after 2,000 hours of operation or after 12 years, whichever occurred first.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The engine's inability to produce full-rated power due to wear on internal engine components, which resulted in a loss of altitude and subsequent landing on uneven terrain. Contributing to the accident was the airplane owner's failure to maintain the engine in accordance with the manufacturer's recommended guidance.

Events

1. Initial climb - Off-field or emergency landing
2. Initial climb - Loss of engine power (partial)

Findings - Cause/Factor

1. Aircraft-Aircraft power plant-Engine (reciprocating)-Recip engine power section-Fatigue/wear/corrosion - C
2. Aircraft-Aircraft handling/service-Maintenance/inspections-Scheduled maint checks-Not inspected - F
3. Personnel issues-Action/decision-Action-Lack of action-Owner/builder - F
4. Personnel issues-Task performance-Maintenance-Scheduled/routine maintenance-Owner/builder - F
5. Environmental issues-Physical environment-Terrain-Sloped/uneven terrain-Contributed to outcome

Narrative

HISTORY OF FLIGHT

On July 19, 2015, about 1320 Pacific daylight time, a Piper PA-28-181, N8740E, collided with terrain minutes after departing Henderson Executive Airport, Las Vegas, Nevada. The private pilot and three passengers were seriously injured, and the airplane was destroyed by a postaccident fire. The airplane was registered to the private pilot, and operated as a 14 Code of Federal Regulations Part 91 personal flight. Visual meteorological conditions prevailed for the flight, and a flight plan had not been filed. The flight originated from Las Vegas about 1330, and was destined for San Diego, California.

The pilot reported that the takeoff seemed normal, but once airborne the airplane's climb was "sluggish" and the engine's rpm's at 200-300 rpm lower than normal. He was able to maintain straight and level flight about 300 feet above ground level (agl). When the pilot made a left-hand turn in an attempt to return to the airport, the airplane immediately began to lose altitude. The pilot selected a landing site, and executed a forced landing into an open area associated with a construction site. During the landing sequence into uneven terrain, the landing gear was torn off, and the airplane caught fire. As soon as the airplane came to rest, the front passenger door was opened and the occupants evacuated the airplane. The airplane was consumed by the postaccident fire.

The tower controller at Henderson Airport reported that the airplane appeared to not be climbing normally after takeoff, and he cleared the pilot to make any maneuvers necessary to return to the airport if he desired. A witness reported that he observed the airplane takeoff and struggle to gain altitude; it then made a left turn followed by a steep bank turn and crashed. The airplane crashed into an open construction site and the occupants egressed the airplane before it was completely engulfed in fire.

The airplane's official weight and balance record was contained in the airplanes maintenance records. Using information from a PA-28-181 Pilot's Operating Handbook, the following was used to estimate expected airplane performance. The pilot reported having 30 gallons (180 lbs) of fuel onboard at the time of

National Transportation Safety Board - Aircraft Accident/Incident Database

takeoff, and the estimated combined weight of all the occupants was 770 lbs. The empty weight of the airplane was 1502.5 lbs. and the listed maximum gross weight is 2,550 lbs. The calculated weight of the airplane at takeoff was 2,452.5 lbs. The airport elevation is 2,492 ft mean sea level (msl), the temperature was 33 C, and the pressure altitude was 30.10 inHg. The calculated density altitude for those conditions was 5,014 ft. Utilizing the climb performance chart for a PA-28-181 for these conditions resulted in an expected rate-of-climb of 520 feet per minute.

AIRCRAFT INFORMATION

A review of the airplane's maintenance records revealed that the most recent annual inspection was performed on February 25, 2015, at a total airframe time of 4,040 hours. The mechanic who performed the annual inspection stipulated in the airframe logbook that the carburetor heat control bracket required repair, and that the number 2 navigation radio head required a placard indicating the radio was inoperative. Once those repairs had been made by an A&P mechanic then the entry stated, "this aircraft will be airworthy & ok for return to service." The A&P mechanic who performed the annual inspection stated to the NTSB investigator-in-charge (IIC) that he did perform the engine static rpm check as part of the annual inspection, during which he noticed that the rpm was 10% to 20% below normal. He attributed that reduction in rpm to the loose carburetor heat door which could allow the carb heat to be in an unknown position. Maintenance records obtained from First Flight Corp, San Diego, CA, documented that the carburetor heat bracket was repaired on March 5, 2015.

The engine, a Lycoming O-360-A4A, capable of producing 180-hp, was overhauled on October 6, 1986, and had accumulated 1,461 hours since the overhaul. The airplane and engine had accumulated a total of approximately 150.4 hours over the 10 years preceding the accident.

On July 23, 2015, the engine was examined by a technical representative of Lycoming under the oversight of a Federal Aviation Administration (FAA) inspector. During the examination, the top spark plugs were removed, examined, and photographed. The crankshaft was rotated by hand utilizing the propeller. The crankshaft was free and easy to rotate in both directions. "Thumb" compression was observed in proper order on all four cylinders. The complete valve train was observed to operate in proper order. Clean, uncontaminated oil was observed at all four rocker box areas. Investigators noted that each of the intake valve rockers exhibited limited movement estimated to be about 50% less than normal. The intake valves of opposing cylinders share a common cam lobe. To facilitate further internal examination, holes were drilled through the top of the engine case material in-line with the rotational plane of each connecting rod. A lighted borescope was inserted to visualize each of the cam lobes at the respective cylinder position. Visual examination confirmed signatures of excessive wear on the intake cam lobes. Mechanical continuity was established throughout the rotating group, valve train and accessory section during hand rotation of the crankshaft. The bottom spark plugs were not removed. The combustion chamber of each cylinder was examined through the spark plug holes utilizing a lighted borescope. The combustion chambers remained mechanically undamaged, and there was no evidence of foreign object ingestion or detonation. The valves were intact and undamaged. There was no evidence of valve to piston face contact observed.

The left and right magnetos remained securely clamped at their respective mounting pads and had been thermally damaged due to the effects of the post impact ground fire. The ignition harness was secure at each magneto. The magnetos were removed for examination. The magnetos sustained varying degrees of thermal damage that rendered the unit inoperative and therefore, could not be functionally tested. Magneto to engine timing could not be ascertained.

There was no oil residue observed in the exhaust system gas path. There was significant ductile bending of the exhaust system components. The exhaust system was found free of obstructions.

A subsequent teardown examination of the engine was conducted September 01, 2015, under the oversight of the NTSB investigator-in-charge. The engine was completely disassembled. The cylinder(s) combustion chambers and barrels remained mechanically undamaged, and there was no evidence of foreign object ingestion or detonation. The valves were intact and undamaged. There was no evidence of valve to piston face contact observed. The pistons were intact. The ring assemblies at each piston were intact and free to rotate within their respective ring land. Mechanical continuity of the rotating group and internal mechanisms were established visually during the disassembly and examination of the engine. The accessory gears including the crankshaft gear, bolt and dowel were intact and remained undamaged by any pre-impact malfunction. There was no evidence of lubrication deprivation found. The crankshaft and attached connecting rods remained free of heat distress. The valve tappet faces exhibited significant spalling damage.

ADDITIONAL INFORMATION

Lycoming Engines Mandatory Service Bulletin SB301B, dated February 18, 1977 provides guidance for maintenance procedures and service limitations for valves. In particular Paragraph 1,(b) states "Rotate the engine by hand and check to determine that all cylinders have normal lift and that rockers arms operate normally" a 400 hour inspection interval. The logbooks did not contain any record of a camshaft lobe inspection, camshaft replacement or compliance with this

SB.

According to Lycoming Engines Service Instruction SI1009AW "Recommended Time Between Overhaul Periods" the subject engine should be overhauled at 2,000 hour intervals or before the twelfth year, whichever occurs first.

Lycoming Engines Mandatory Service Bulletin SB480E provides guidance when inspecting oil system screens and filters for contamination during inspection cycles.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA570	08/30/2017	1808 LCL	Regis# N4078J	Saipan, MP	Apt: Francisco C Ada/saipan Intl GSN
Acft Mk/Mdl PIPER PA 31-350			Acft SN 31-8152057	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
			Acft TT 9341	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 135
Opr Name: STAR MARIANAS AIR, INC.			Opr dba:		Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA16LA061	12/04/2015 1245 EST	Regis# N88F	Millville, NJ	Apt: Millville Muni MIV
Acft Mk/Mdl PIPER PA-24-250		Acft SN 24-1961	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-540 SERIES		Acft TT 3455	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: ROGER BUCK		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Summary

The private pilot and flight instructor were conducting an instructional flight. The pilot reported that, before the flight, he conducted a preflight inspection and before-takeoff check, which were normal. During the initial climb and when the airplane was about 150 ft above ground level, the engine lost total power. The pilot chose to land the airplane straight ahead between two taxiways on the airport. The airplane impacted a grassy area and sustained substantial damage to the left wing and fuselage.

An examination of the airframe and engine did not reveal any evidence of preimpact mechanical failures or malfunctions that would have precluded normal operation, and there was sufficient fuel onboard at the time of the accident. Although the weather conditions at the time of the accident were conducive to serious carburetor icing at glide power, the pilot applied full power for takeoff; therefore, it is unlikely that carburetor ice formed during the takeoff sequence. The investigation could not determine the reason for the total loss of engine power.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The total loss of engine power during initial climb for reasons that could not be determined because postaccident examination of the engine revealed no anomalies that would have precluded normal operation.

Events

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

Findings - Cause/Factor

1. Not determined-Not determined-(general)-(general)-Unknown/Not determined - C
2. Environmental issues-Physical environment-Runway/land/takeoff/taxi surface-Soft surface-Contributed to outcome

Narrative

On December 4, 2015, about 1245 eastern standard time, a Piper PA-24-250, N88F, was substantially damaged during a forced landing following a total loss of engine power near Millville, New Jersey. The private pilot/owner incurred minor injuries and the flight instructor was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight, which originated from Millville Municipal Airport (MIV), Millville, New Jersey, about 1245, and was destined for South Jersey Regional Airport (VAY), Mount Holly, New Jersey. The instructional flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilots, they had flown the airplane earlier in the day with no anomalies noted. Then, after a brief break, the private pilot/owner of the airplane completed a preflight inspection and engine run up with no anomalies noted. Then, they departed runway 32. After takeoff, about 150 feet above ground level, the private pilot/owner retracted the landing gear, and then the engine experienced a total loss of power. The private pilot/owner lowered the nose and noted that the airplane was "too low and fast to try a restart." He elected to land the airplane straight ahead between two taxiways on the airport. The airplane impacted a grassy area and sustained substantial damage to the left wing and fuselage.

A postaccident examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed that the left and right fuel tanks contained an undetermined amount of fuel, and no debris was noted in the fuel. All three propeller blades remained attached to the propeller hub, exhibited chordwise scratching, and were bent in the aft direction.

An examination of the engine revealed that there were no obvious oil or fuel leaks. In addition, the FAA inspector reported that the carburetor contained approximately two tablespoons of fuel. The auxiliary fuel pump was placed in the "ON" position and fuel was noted flowing from the carburetor drain plug. Throttle control cable continuity was confirmed to the engine. Both the left and right magnetos produced spark on all leads when rotated manually. The ignition leads were normal in appearance. All spark plugs appeared to be in "normal" condition with no fouling or damage. Suction and compression was observed on all cylinders when the engine crankshaft was rotated manually. The fuel system appeared normal and there were no contaminants in the tanks.

According to FAA records and maintenance logbooks, the airplane was manufactured in 1960, and registered to the private pilot/owner on November, 9, 2015. It was powered by a Lycoming O-540 series, 250-hp engine. The most recent annual inspection was completed on November 30, 2015, at a tachometer

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reading of 152.7 hours, and a total time of 3455.47 flight hours. The tachometer indicated 154.3 hours at the time of accident.

According to the 1254 weather observation at the airport, the temperature and dew point were 50 degrees F and 32 degrees F, respectively. According to the carburetor icing probability chart in FAA Special Airworthiness Information Bulletin CE-09-35 (Carburetor Icing Prevention), dated June 30, 2009, the temperature/dew point at the time of the accident was conducive to the formation of serious icing at glide power.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA565 09/26/2017 1000 AKD Regis# N109T Holy Cross, AK Apt: N/a
Acft Mk/Mdl PIPER PA18-150 Acft SN 18-2223 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 135
Opr Name: BRUCE J. WERBA Opr dba: Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA441	07/23/2017	1110 AKD	Regis# N4387A	Sterling, AK	Apt: Scooter's Landing Strip AK84
Acft Mk/Mdl PIPER PA18S-150			Acft SN 18-4795	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320			Acft TT 2321	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: JAMES G. TRUESDELL			Opr dba:		Aircraft Fire: NONE
					AW Cert: STN

Events

1. Landing - Loss of control on ground
-

Narrative

The pilot of the tailwheel-equipped airplane reported that, while landing in crosswind conditions, as the tailwheel set down the airplane veered left. Subsequently, the airplane exited the left side of the runway, struck a well head and came to rest nose down.

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 automated weather observation system about 7 nautical miles from the accident site reported, about the time of the accident, the wind was 280ø at 11 knots. The pilot landed on runway 26.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA452	07/29/2017 2115 CDT	Regis# N2204B	St. Joseph, IL	Apt: Routh 9IL2
Acft Mk/Mdl PIPER PA28-236		Acft SN 28-7911012	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-540-J3A5D		Acft TT 3391	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: PAUL L. ROUTH		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Events

1. Landing - Hard landing
-

Narrative

The pilot reported that, while landing at night, the threshold and right side runway lights were out of service at the airport. He added that, he "must have been closer [to the ground] than [he] estimated" on approach because the airplane landed flat. Subsequently, the nose landing gear collapsed, the airplane veered left and he attempted to correct with right rudder. The airplane came to rest left of the runway in an adjacent cornfield.

The airplane sustained substantial damage to the 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.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR17LA211	09/20/2017 1309 PDT	Regis# N7514S	Long Beach, CA	Apt: Long Beach /daugherty Field/ LGB
Acft Mk/Mdl ROBINSON HELICOPTER R22 BETA-BETA	Acft SN 3333	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360 SERIES		Fatal 0	Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: REVOLUTION AVIATION	Opr dba:		Aircraft Fire: NONE	AW Cert: STN

Events

1. Landing - Unknown or undetermined
-

Narrative

On September 20, 2017, at 1309 Pacific daylight time, a Robinson R22 Beta, N7514S, landed hard and rolled over following a forced landing at Long Beach Airport (Daugherty Field), Long Beach, California. The student pilot, who was the sole occupant, sustained serious injuries, and the helicopter sustained substantial damage. The helicopter was registered to Spitzer Helicopter LLC, and operated by Revolution Aviation, under the provisions of 14 Code of Federal Regulations Part 91 as an instructional flight. The local flight departed Long Beach about 1307. Visual meteorological conditions prevailed, and no flight plan had been filed.

The student departed earlier in the morning with his instructor from their operational base in Santa Ana. They planned to fly to Long Beach Airport, where the instructor would disembark, and the student would perform a series of solo maneuvers and flights in the traffic pattern. After arriving at Long Beach and landing on helicopter pad 1 they performed a pedal turn, to determine how the helicopter would perform in the wind, and then departed for a flight in the traffic pattern. After landing, the instructor got out of the helicopter, and waited on the grass area adjacent to the pad. From there he watched the student perform a series of low hovering maneuvers, all of which progressed uneventfully. Once complete, the other helicopter's in the area had departed, and they both agreed that the student should depart and perform one circuit in the traffic pattern, and then land on pad 3, which was a larger pad, that the student was more familiar with.

The departure and landing were uneventful, and once on the ground, the student and instructor gave each other the "thumbs-up", and the student departed for another flight in the pattern. The instructor reported that the flight in the pattern appeared normal, and during the landing approach the descent path and speed were appropriate. However, as the helicopter approached the pad, it started to slow down. He thought the student was going to land just short of the pad, however, the nose then began to yaw to the left and right by a few degrees, and the helicopter suddenly began to descend. He described the descent as rapid and uncontrolled, as if the helicopter had lost all lift. The helicopter then hit the ground slightly left side low, and rolled onto its side.

The student recounted similar observations, reporting that as he began to approach the pad at an elevation of about 40 ft, the helicopter started to shudder, and then the low rotor RPM horn sounded. He reacted by immediately lowering the collective control and initiating an autorotation, and just prior to striking the ground, he pulled back on the cyclic control.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA279	05/10/2017 1627 CDT	Regis# N428JG	Vevay, IN	Apt: N/a
Acft Mk/Mdl ROBINSON HELICOPTER COMPANY	Acft SN 10168	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual	Prob Caus: Pending
Eng Mk/Mdl LYCOMING IO-540-AE1A5	Acft TT 2220	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 137	
Opr Name: AG-MAX LLC	Opr dba:		Aircraft Fire: NONE	
			AW Cert: SPR	

Events

1. Enroute-descent - Controlled flight into terr/obj (CFIT)
-

Narrative

The pilot reported that he accomplished a high reconnaissance before maneuvering to descend for an aerial application. He recalled that his attention was split between visually acquiring the intended application area and the indications on his digital map mounted in the cockpit. He descended below a tree line into the intended application area, but "I was still attempting to compare the crop on my field to my map, and was not looking outside the aircraft as diligently as required." He diverted his attention outside the cockpit and noticed powerline wires at eye level. He asserted that he immediately lowered the collective and applied forward cyclic, but the main rotor mast struck the powerline wires. He landed the helicopter in the field, however, the main rotor blades sustained substantial damage.

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

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR17LA214	09/23/2017 1415 PDT	Regis# N52KF	El Cajon, CA	Apt: Gillespie Field SEE
Acft Mk/Mdl SC AEROSTAR SA YAK 52W-NO SERIES	Acft SN 9111213	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl AMA/EXPR UNKNOWN ENG		Fatal 0	Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: PAUL SMITH	Opr dba:			Aircraft Fire: NONE

Events

1. Taxi - Loss of control on ground
-

Narrative

On September 23, 2017, about 1415 Pacific daylight time, a Yak-52W, N52KF, sustained substantial damage following a reported loss of control while taxiing at Gillespie Field Airport (SEE), El Cajon, California. The airplane was registered to an individual and operated by the pilot under the provision of Title 14 Code of Federal Regulations Part 91. The pilot and the passenger were not injured. Visual meteorological conditions prevailed and no flight plan has been filed.

The pilot reported that he conducted a normal preflight, completed the starting engine checklist and attempted to start the engine, but was unable to do so due to a required recharge of the pneumatic system. Another individual arrived with a tank of air to pressurize the system, which allowed the pilot to remain in the airplane. The pilot had shut off the compressed air supply valve, as required in the first step in recharging the pneumatic system, to ensure against over pressurizing the system. The individual with the tank of air realized that they had accidentally brought the wrong adapter for the subject airplane and left to find the correct adapter. A second individual arrived and offered to assist to start the engine by manually turning the propeller, while the pilot primed the cylinders as there appeared to be sufficient existing air pressure. Subsequently, the engine started.

The pilot completed the post start checklist and started to taxi. Shortly thereafter, the pilot experienced a loss of braking performance which affected the airplane's steering capabilities. The pilot realized that the compressed air supply valve was shut off and attempted to turn it back on while turning the engine off and maintaining steering control. Due to the size constraints of the cockpit, the pilot could not reach the supply valve without unstrapping and turning around before the airplane impacted the fence.