
National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA12FA123	12/26/2011 1406 EST	Regis# N560WM	Venice, FL	Apt: Venice Municipal Airport VNC
Acft Mk/Mdl AERO COMMANDER 560-F		Acft SN 560F-1305-58	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING IGO-540-B1A		Acft TT 5826	Fatal 1 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: ANDRES BUSTILLO		Opr dba:		Aircraft Fire: GRD
				AW Cert: STN

Narrative

On December 26, 2011, at 1406 eastern standard time, an Aero Commander 560F, N560WM, collided with the ground while attempting to return to Venice Municipal Airport (VNC), Venice, Florida. The airplane was registered to a private owner, and was operating as a 14 Code of Federal Regulations Part 91 personal flight. The airplane sustained substantial damage and a post crash fire ensued. Visual meteorological conditions prevailed and an instrument flight rules (IFR) flight plan was filed. The certificated private pilot was killed. The flight departed from VNC at 1352 and was en-route to Barwick Lafayette Airport (9A5), Lafayette, Georgia.

Review of audio communication between Federal Aviation Administration Tampa Approach and N560WM revealed the pilot received an IFR clearance on the ground at VNC. While climbing to an assigned altitude of 6,000 feet mean sea level, the pilot reported a loss of engine power on the left engine. Tampa approach provided radar vectors and a descent back to VNC airport. The pilot reported the airport in sight at 12 o'clock and 4 miles. The controller cleared the pilot for a visual approach and there were no further radio communications with the pilot.

A witness stated he observed the airplane in the vicinity of runway 22. The airplane was observed to pitch straight up, stall, and spin to the left three times before it collided with the ground upright. About 1 minutes and 30 seconds after the airplane collided with the ground it was engulfed in flames.

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Accident Rpt# WPR12CA041	11/20/2011 1230 MST	Regis# N131PM	Ashton, ID	Apt: Private Airstrip, No Name NONE
Acft Mk/Mdl AMERICAN CHAMPION AIRCRAFT 8GCBC	Acft SN 462-2004	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360 SERIES	Acft TT 656	Fatal 0	Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: RUSSELL J. SCHWENDIMAN	Opr dba:	Aircraft Fire: NONE		AW Cert: STN

Narrative

The student pilot reported that he approached the privately owned rough grass airstrip and observed that it was covered with snow. After evaluating the snow's depth as being only a few inches, the pilot landed. During rollout, the airplane decelerated quickly and nosed over, bending its vertical stabilizer, wings, and lift struts. Upon exiting the airplane, the pilot ascertained that, in fact, the snow was between 6 and 8 inches deep. The student pilot's certified flight instructor reported that he had not endorsed the student's flight record logbook in over 90 days, and he had not authorized the student to fly to the accident airport. The student was not current in the airplane.

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Accident Rpt# CEN12LA112	12/22/2011 1155 EST	Regis# N161PC	Marysville, OH	Apt: Union County Airport MRT
Acft Mk/Mdl AMERICAN CHAMPION AIRCRAFT 8KCAB	Acft SN 962-2004	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl LYCOMING AEIO-360 SER		Fatal 1	Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MICHAEL S LAKIN LLC	Opr dba:		Aircraft Fire: NONE	AW Cert: STA

Narrative

On December 22, 2011, about 1155 eastern standard time, an American Champion model 8KCAB, N161PC, impacted the ground while maneuvering near the Union County Airport (MRT), Marysville, Ohio. The pilot was performing aerobatics for a re-issuance of his unlimited aerobatic competency card. The pilot, who was the sole occupant, was fatally injured. The airplane sustained substantial damage to its fuselage and wings. The aircraft was registered to and operated by the commercial pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, which was not operated on a flight plan. The local flight had originated from MRT minutes prior to the accident.

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Accident Rpt# CEN12FA115	12/24/2011 1350 EST	Regis# N33SR	Mcarthur, OH	Apt: Vinton County Airport 22I
Acft Mk/Mdl BEECH 19A		Acft SN MB-443	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320-E2C			Fatal 3 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: KEVIN P. BYERS		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

On December 24, 2011, about 1350 eastern standard time, a Beech model 19A, N33SR, impacted a road about 250 feet south of the departure end of runway 27, at the Vinton County Airport (22I), McArthur, Ohio. The pilot and two passengers were fatally injured. The airplane sustained damage to the fuselage, both wings, and the landing gear. The aircraft was registered to and operated by the private pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, which was not on a flight plan. The origin of the flight has not been determined.

The airport manager reported seeing the airplane depart from 22I several hours before the accident. He did not see the airplane return to the airport, nor did he see the accident.

Another witness who lived in a house near the accident site reported hearing the airplane "rev up". He said that he glanced out of his window and saw the airplane above the runway and climbing toward the west. The airplane was about treetop level when he saw it. This witness said that he didn't continue watching the airplane and looked away. Seconds later he heard an impact and he and his mother drove to accident scene where they discovered the crashed airplane.

The airplane came to rest along a road that parallels the runway on the south side of the airport. There were witness marks on the road that indicated the direction of travel was to the west-southwest. The airplane slid into the roadside ditch on the south side of the road and came to rest facing north.

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Accident Rpt# WPR12LA052	12/02/2011 1425 PST	Regis# N23852	San Carlos, CA	Apt: San Carlos Airport SQL
Acft Mk/Mdl BEECH 76		Acft SN ME-15	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O&VO-360 SER			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BEL-AIR INTERNATIONAL		Opr dba:		Aircraft Fire: NONE

Narrative

On December 2, 2011, about 1425 Pacific standard time (PST), a Beech BE-76 Duchess, N23852, experienced a right main landing gear collapse after landing at San Carlos Airport, San Carlos, California. The airplane was operated by Bel-Air International under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The certified flight instructor (CFI) and the private pilot undergoing instruction (PUI) were not injured. The airplane sustained substantial damage to the right wing. The local instructional flight departed San Carlos about 1410. Visual meteorological conditions prevailed, and no flight plan had been filed.

The operator reported that prior to landing the landing gear indicated an unlocked position. The pilots attempted to resolve the unsafe gear by recycling the landing gear but were unsuccessful. During a fly-by over the runway, tower personal reported that the gear appeared to be down.

The CFI decided to land with the unsafe gear indication. After touchdown and during the turn off the runway, the right main landing gear collapsed. The right wing contacted the surface and sustained buckling and deformation damage to the outboard section of the wing.

During the postaccident recovery, the airplane was lifted and the right main landing gear was extended and secured. A preliminary examination revealed that the "A" frame assembly separated at the top/forward attach point.

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Accident Rpt# CEN12LA103	12/09/2011 1530 CST	Regis# N6717K	Watertown, SD	Apt: Watertown Regional Airport KATY
Acft Mk/Mdl BEECH C23		Acft SN M-2266	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360-A4K		Acft TT 8144	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: LAKE AREA TECHNICAL INSTITUTE		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

On December 9, 2011, at 1530 central standard time, a Beech model C23 airplane, N6717K, was substantially damaged during a forced landing at Watertown Regional Airport (KATY), Watertown, South Dakota. The student pilot was not injured. The airplane was registered to and operated by Lake Area Technical Institute under the provisions of 14 Code of Federal Regulations Part 91. Day visual meteorological conditions prevailed for the flight, which was operated without a flight plan. The local flight was originating at the time of the accident.

The student pilot reported that there were no anomalies with the engine operation during a before-takeoff engine check or when he applied power for takeoff. He stated that shortly after liftoff, about 50-100 feet above the runway, the engine suddenly lost power. He immediately performed a landing on the remaining runway. The airplane touched down hard and then bounced several times before the nose and right main landing gear collapsed. The airplane then swerved to the right and collided with a lighted runway identification sign before coming to a stop. The firewall and wings were substantially damaged during the hard landing. The student pilot stated that after the accident he was asked by first responders to reposition the fuel selector and the electrical system master switch to "off" positions.

The engine, a Lycoming model O-360-A4K, serial number L-27560-36A, had accumulated 110.7 hours since its last major overhaul, which was completed on April 12, 2011. A postaccident examination revealed that the carburetor and gascolator bowls contained fuel with no evidence of water contamination. There were no obstructions of the flexible induction tubing from the air filter housing to the carburetor. Mechanical continuity was confirmed from the cockpit engine controls to their respective engine components. The engine primer was full forward and locked. The carburetor heat control was not engaged. The magnetos were adequately secured to the accessory section and provided spark when rotated. The spark plugs were removed and exhibited features consistent with normal engine operation. The accident engine subsequently demonstrated the ability to produce rated horsepower during a postaccident operational test run.

At 1553, the airport's automated surface observing system reported the following weather conditions: wind 270 degrees at 13 knots; visibility 10 miles; clear skies; temperature -10 degrees Celsius; dew point -21 degrees Celsius; altimeter setting 30.29 inches of mercury.

The carburetor icing probability chart included in Federal Aviation Administration Special Airworthiness Information Bulletin No. CE-09-35, Carburetor Icing Prevention, indicated that there was no significant risk of carburetor ice accumulation at any engine power setting.

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Accident Rpt# ERA11FA293	05/11/2011 947 EDT	Regis# N17825	Tarentum, PA	Apt: Rock Airport 9G1
Acft Mk/Mdl BEECH F33A		Acft SN CE-711	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO 550 SERIES		Acft TT 4852	Fatal 0 Ser Inj 2	Flt Conducted Under: FAR 091
Opr Name: JON AIR LLC		Opr dba:		Aircraft Fire: NONE

Narrative

HISTORY OF FLIGHT

On May 11, 2011, at 0947 eastern daylight time, a Hawker Beechcraft Corporation F33A, N17825, was substantially damaged during a runway overrun following an aborted takeoff at Rock Airport (9G1), Tarentum, Pennsylvania. Visual meteorological conditions prevailed and no flight plan was filed for the local orientation flight. The certificated private pilot and one passenger were seriously injured, while the two other passengers received minor injuries. The flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

Prior to the accident flight, the airplane departed Butler County Airport/K W Scholter Field (BTP), Butler, Pennsylvania, about 0900, after it was serviced with 2.5 gallons of fuel, which filled the tanks. The pilot flew 12 nautical miles to 9G1, where the airplane landed uneventfully about 0925, taxied to parking, and shutdown.

The accident airplane was one of several involved in a Young Eagles event that day to introduce students to general aviation. According to witnesses, the airplane began its takeoff roll at the approach end of runway 17, which was 3,550 feet long. They described the airplane as it accelerated down the runway, lifted off, climbed a few feet, and settled back on the runway. The airplane "swerved" as it slowed, and then overran the departure end of the runway and 100 feet of the grass overrun area. Skid marks began approximately 712 feet prior to the end of the runway. Witnesses said the airplane "almost" stopped on the overrun, but crested a steep, 30-degree embankment, and rolled about 100 feet to the bottom where it struck a culvert and came to rest.

The pilot declined to be interviewed, and did not provide a written statement.

WRECKAGE AND IMPACT INFORMATION

The airplane was examined at the site and all major components were accounted for at the scene.

Control cable continuity was established from the flight control surfaces to the cockpit area.

The right wing leading edge exhibited damage across the inboard half of the wing and remained attached at all attachment points. The right aileron and flap remained intact and attached to the wing. The left wing leading edge exhibited crush damage on the entire front section of the wing. The left aileron remained attached at both hinges and the push rod and the left flap remained attached. The flaps were in the retracted position confirmed by the measurement of the flap actuator. The main landing gear were locked in the down position and the inboard landing gear doors were closed. The landing gear control handle was in the down position and the landing gear actuator was in the down position.

The horizontal stabilizer, elevator, vertical stabilizer, and rudder remained attached to the fuselage with no damage noted. The elevator trim setting was approximately neutral.

All seats were equipped with lap belts and shoulder harnesses. All shoulder harnesses were intact. All lap belts remained attached to their respective attachment points. The left front seat lap belt exhibited no obvious damage and was found in the most extended position. The right front seat lap belt operated normally and was in the most extended position. The left rear seat lap belt exhibited no obvious damage. The right rear seat shoulder harness remained attached to the lap buckle. The right rear seat lap belt exhibited no obvious damage. First responders stated that only the passenger in the right rear seat wore a shoulder harness. All shoulder harnesses and inertial reels operated normally when tested. All seats were found in the most upright position.

The engine was retained and examined at a later date.

PERSONNEL INFORMATION

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According to the Federal Aviation Administration (FAA) records, the pilot held a private pilot certificate with ratings for airplane single-engine land and instrument airplane. His most recent third class medical certificate was issued in October 2009. The pilot reported 2,300 total hours of flight experience, of which 1,700 hours were in the same make and model as the accident airplane. The pilot accrued 12 hours of flight time in the 30 days prior to the accident.

AIRPLANE INFORMATION

According to FAA records, the airplane was manufactured in 1977, and registered to the pilot in 1998. It was a four-seat, low-wing, retractable gear airplane that was equipped with a Teledyne-Continental Motors IO-550-B42, 300-horsepower engine. The most recent annual inspection was completed on April 12, 2011, at 4,851.7 total airplane hours. The airplane was modified with a JL Osborne Tip Tank supplemental type certificate (STC), which increased the total fuel capacity of the airplane to 120 gallons.

METEOROLOGICAL INFORMATION

The 0935 recorded weather observation at BTP, located approximately 12 miles northwest of the accident location, included winds from 090 degrees at 8 knots, clear skies, 10 miles of visibility, temperature 18 degrees C, dew point 6 degrees C, and an altimeter setting of 30.03 inches of mercury.

The calculated density altitude for the airport at the time of the accident was 1,661 feet.

AIRPORT INFORMATION

Rock Airport was located about 12 miles northeast of Pittsburgh, Pennsylvania, at 1,063 feet elevation. The airport was not tower-controlled. The asphalt runway was 3,550-feet-long, 100-feet-wide, and oriented 17/35.

TESTS AND RESEARCH

The handheld video camera, handheld global positioning system (GPS), and engine data monitoring system were forwarded to the NTSB Recorders Laboratory in Washington, DC. Examination did not reveal any data relevant to the accident.

Engine Examination

The engine was examined at the manufacturing facility in Mobile, Alabama, on June 13, 2011. The crankshaft was rotated by hand, valve train continuity was confirmed, and thumb compression was established on all cylinders. The oil filter and fuel filter were void of any debris. The top spark plugs were removed, all exhibited normal wear, and were light gray in color. The engine was prepared for an engine run and several impact-damaged engine components were repaired or replaced to facilitate engine operation. The engine started on the first attempt and ran without misfiring. The engine throttle was rapidly advanced from idle to full throttle several times and the engine performed without hesitation or interruption in power. The engine was run for approximately 20 minutes and then shut down.

Weight and Balance

Weight and balance calculations were performed using weight and balance information provided by the pilot, the actual weights of the occupants, the baggage recovered at the scene, and 110 gallons of fuel. The manufacturer's center of gravity range at maximum gross weight was 82.1 to 86.7 inches aft of datum. The manufacturer's maximum allowable takeoff weight was 3,400 pounds; however the airplane was modified with a JL Osborne Tip Tank STC, which increased the maximum takeoff weight to 3,600 pounds. Calculations revealed the airplane weighed 3,830.5 pounds at takeoff, with a center of gravity at 87.63 inches aft of datum. No published center of gravity limit data existed for weights above maximum takeoff weight.

Performance Calculations

The airframe manufacturer used the weather conditions present at the airport at the time of the accident, and the weight and balance data calculated to formulate an accelerate/stop distance for the accident airplane. At 3,400 pounds, the total distance for the airplane to accelerate to the recommended rotation speed and abort the takeoff to a stop was 2,171 feet. The extrapolated accelerate/stop distance at 3,830.5 pounds was 2,483 feet.

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Accident Rpt# ERA11FA295	05/12/2011 1316 EDT	Regis# N1554W	Washington, PA	Apt: Washington County AFJ
Acft Mk/Mdl BEECH G33		Acft SN CD-1286	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO-470 SERIES		Acft TT 1230	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: SCARROW LLOYD W		Opr dba:		Aircraft Fire: NONE

Narrative

HISTORY OF FLIGHT

On May 12, 2011, about 1316 eastern daylight time, a Hawker Beechcraft Corporation G33 Bonanza, N1554W, was substantially damaged during a forced landing to a field near Washington, Pennsylvania. The certificated airline transport pilot/owner was seriously injured. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight conducted under the provisions of 14 Code of Federal Regulations Part 91. The flight originated from Washington County Airport (AFJ), Washington, Pennsylvania, around 1315.

According to the pilot, the purpose of the flight was to confirm adjustments made following an initial maintenance test flight he performed the previous day, which followed an annual inspection of the airplane. If the airplane performed satisfactorily, he intended to complete a flight to Rostraver Airport (FWQ), Monongahela, Pennsylvania, and return to AFJ. The pilot stated that he arrived at the maintenance facility, completed a preflight inspection of the airplane, and made "a specific note of the fuel quantity." He also stated that, during the engine run up, he moved the fuel selector to the right tank which was the "fuller of the two" tanks. After the engine ran for approximately 10 minutes, the airplane was taxied for takeoff.

After takeoff, the pilot retracted the landing gear, the engine "choked," and the RPM and manifold pressure decreased. The pilot immediately decreased the pitch attitude of the airplane and made a left turn to the crosswind leg of the traffic pattern while attempting to restart the engine. He stopped the engine-restart attempts as the propeller came to a "standstill" and selected a field approximately one mile from the airport for the forced landing. The airplane landed with the landing gear retracted, and slid to a stop upright, with the wings wrinkled, the engine dislodged from its mounts, and the pilot seriously injured.

According to a mechanic at the maintenance facility, the pilot did not perform a preflight inspection before the accident flight; but immediately entered the airplane, started the engine and then taxied the airplane toward the runway. As the airplane taxied, the mechanic noticed a piece of tape dangling from the airplane that had been placed there during the annual inspection. He signaled the pilot to stop the airplane, removed the tape, and then signaled the pilot to continue the taxi. According to the mechanic and the facility owner/supervisor, 10 to 15 minutes after the airplane taxied from the maintenance facility's hangar, the pilot announced over the radio that "everything concerning the aircraft was running great."

Examination of radar data from the Federal Aviation Administration (FAA) revealed that the target identified as the accident airplane climbed to about 700 feet above ground level before it descended toward the accident site. The total duration of the flight was about 1.5 minutes.

According to the Deputy Director of Public Safety for Washington County Pennsylvania, firefighters, emergency medical technicians, and a HAZMAT team were immediately deployed to the site. The pilot was treated for his injuries, and transported to the hospital. The airplane was then leveled, and secured to the ground with cargo straps.

According to the Director, there was no evidence of fuel spillage at the scene, and therefore no HAZMAT remediation was performed at the site.

WRECKAGE AND IMPACT INFORMATION

The wreckage was examined on May 13, 2011. There was no odor of fuel, and no evidence of fuel spillage at the scene. The initial ground scar was in an open field on a shallow slope, and the wreckage path was 138 feet long and oriented 248 degrees magnetic. The three-bladed propeller was separated from the engine, and found approximately 90 feet beyond the initial ground scar. The main wreckage came to rest upright, and faced about 232 degrees magnetic.

The engine was separated from its mounts, but remained attached to the airplane by miscellaneous cables and lines. The engine rested on its left side, nearly inverted, and was displaced approximately 60 degrees to the right of centerline. The engine was largely intact, but damaged by impact. The starter and pieces of induction system were separated from the engine. The fuel vapor return line, and its 45-degree attachment fitting, were separated from the fuel pump at the housing assembly. Examination of the cowling and the grass beneath the open port revealed no fuel accumulation, no fuel staining, no odor of fuel, and no fuel

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blight.

The cockpit and cabin area were largely intact. Impact damage and wrinkling of the cockpit floor and exterior sheet metal was evident. The main landing gear was retracted and the main landing gear switch was found in the up position. The left main landing gear door was separated and came to rest about 55 feet prior to the main wreckage. The left front seat lap belt remained attached at both attachment points and the buckle end of the belt was not engaged in the buckle. Testing of the seat belt and the cockpit door revealed that both operated normally.

Control continuity was confirmed from the cockpit to all flight control surfaces, and the flaps were found in the retracted position. The fuel tank selector was found in the left tank position. The auxiliary fuel pump switch was located in the "off" position. The tachometer indicated a time of 1,229.8 hours.

Both wings remained attached to the fuselage at all attachment points. The right wing was bent upwards outboard of the fuel tank. The fuel cap was fully seated and locked. The fuel cap was removed, and the fuel level reached the slot in the filler neck, approximately 2 inches below the cap.

The left wing was bent slightly upwards and the outboard tip leading edge exhibited crush damage. The left wing fuel cap was fully seated and locked. The fuel cap was removed, and examination revealed only a trace amount of fuel in the tank. When the fuel cap was removed, fuel flowed from the open vapor return line port at the fuel pump, and pooled in the damaged cowling beneath it. The engine in its as-found condition placed the fuel pump below both fuel tanks. The fuel selector was moved from the left tank position to the "Off" position, and fuel stopped flowing from the fuel pump. The fuel selector was then moved to the right tank position, and fuel again flowed from the open port in the fuel pump.

Fuel system continuity was confirmed from the left and right wing fuel tanks to the engine.

PERSONNEL INFORMATION

According to FAA records, the pilot held an airline transport pilot certificate with a rating for airplane multiengine land, a commercial pilot certificate with ratings for airplane single-engine land, and instrument airplane. His most recent first class medical certificate was issued on May 20, 2010. The pilot reported 2,790 total hours of flight experience, of which, 800 hours were in the same make and model as the accident airplane. He also indicated that he accumulated 25 hours of flight time in the 90 days prior to the accident.

AIRPLANE INFORMATION

According to FAA records, the airplane was manufactured in 1972. It was a four-seat, low-wing, retractable gear airplane that was equipped with a Teledyne-Continental Motors IO-470-N, 260-horsepower, engine. The most recent annual inspection was completed on May 11, 2011, and at the time of the inspection the airframe accumulated 4,522 total hours. The tachometer indicated 1,228.8 at that time.

According to the Pilot's Operating Handbook (POH), the airplane had a total fuel capacity of 80 gallons; 40 gallons in each tank, of which 3 gallons were unusable. When the fuel tank was serviced to the slot in the filler neck of either tank, that individual tank contained 35 gallons of fuel.

The fuel system was configured so that fuel could be drawn from either tank individually. The fuel tanks could not be drawn from simultaneously, and neither did the fuel system have the ability to cross feed from one tank to the other.

METEOROLOGICAL INFORMATION

The 1355 recorded weather observation at AFJ, located approximately 1 mile northeast of the accident location, included wind from 240 degrees at 5 knots, clear skies, 10 miles of visibility, temperature 25 degrees C, dew point 19 degrees C, and an altimeter setting of 29.96 inches of mercury.

TESTS AND RESEARCH

Engine Examination

The engine was examined at the manufacturing facility in Mobile, Alabama, on June 15, 2011. The crankshaft was rotated by hand, valve train continuity was confirmed, and thumb compression was established on all cylinders. The oil filter and fuel filter were void of any debris. The top spark plugs were removed, all

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exhibited normal wear, and were light gray in color. The engine was prepared for an engine run and several impact-damaged engine components were repaired or replaced to facilitate engine operation. The engine started on the first attempt and ran without hesitation. The engine throttle was rapidly advanced from idle to full throttle several times where it performed without stumbling or interruption in power. The maximum fuel flow rate during the engine examination was 139.5 pounds (23.5 gallons) of fuel per hour. The engine was run for approximately 25 minutes and then shut down.

Pilot/Owner Fuel Consumption Estimates

The pilot estimated the fuel consumption rate to be 11 to 14 gallons per hour and in a later statement suggested that the maximum consumption rate was 16 gallons per hour. The Pilot's Operating Manual stated that the fuel consumption rate ranged from 6.0 gallons per hour to 22.1 gallons per hour.

Global Positioning System Unit

The NTSB recorders laboratory examined the Garmin 496 Global Positioning System (GPS) unit on May 24, 2011. No pertinent flight log information was downloaded from the GPS as the tracklog memory was "full" and the last recorded flight was in February 20, 2011.

According to the pilot, he had a fuel prompt set on the GPS unit that reminded him to move the fuel selector switch every 15 minutes. Examination of the unit indicated that the fuel reminder mode was set for a 30-minute reminder. Also, the reminder mode was in the "Off" position.

ADDITIONAL INFORMATION

According to maintenance and fueling records, an annual inspection was completed and the airplane was fueled to the "slots" on May 11, 2011; the day prior to the accident. After the fuel service, two test runs of the engine were completed; one by the maintenance supervisor and another by the pilot. The supervisor estimated that he ran the engine for approximately 20 minutes, and taxied the airplane, with no defects noted. Later that day, the pilot arrived at the airport in order to perform a test run of the engine and a test flight of the airplane. Shortly after the pilot's arrival, the mechanic heard the "engine cranking for a long duration without starting." He then asked his supervisor to assist the pilot with starting the engine.

According to the supervisor, he boarded the airplane and asked the pilot to verify the fuel selector was in an "on" position. The pilot remarked "oh," and the supervisor heard the pilot move the fuel selector one position. After that, they primed the engine, and the airplane started. Prior to the flight, the supervisor requested that the pilot perform an aborted takeoff before beginning the test flight, and cautioned the pilot/owner to "stay in the [traffic] pattern" during the test flight.

About 20 minutes after the airplane taxied from the facility, the supervisor noted that the accident airplane could not be heard in the pattern, and the pilot failed to respond to calls from his hand-held radio. The supervisor then searched the airport in his personal vehicle for the airplane, and proceeded to the main terminal when his search was unsuccessful. Airport personnel were able to contact the pilot on the UNICOM frequency, and the pilot reported that his position was "20 miles south" of the airport.

Examination of radar data from the day of the test flight revealed that the radar target identified as the airplane climbed to 10,200 feet, and was aloft for approximately 30 minutes.

According to a placard affixed to the tachometer, "Hourmeter recording rate is correct at 2310 RPM."

According to the Pilot's Operating Manual, the ninth item on the "Before Starting" checklist states "Fuel Selector - ON, Fuller tank."

The Limitations section of the POH, and a placard by the fuel selector both stated, "Do not take off if fuel quantity gages indicate in yellow band or with less than 13 gallons in each main tank."

The "Engine Failure on Take-off" emergency procedure stated that if insufficient runway remained for landing to:

1. Fuel Selector - Fuller Tank
2. Boost Pump - On
3. Mixture - Full Rich

4. Magnetos - Check, On Both

IF NO RESTART

1. Select most favorable landing site ahead.
2. Gear down before landing.

Then, the manual stated "the most probable cause of engine failure would be loss of fuel flow or improper functioning of the ignition system."

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Accident Rpt# WPR12CA068	12/16/2011 1505 MST	Regis# N8281D	Cheyenne, WY	Apt: Cheyenne Regional KCYS
Acft Mk/Mdl BEECH J35		Acft SN D-5402	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO-470 SERIES		Acft TT 6972	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: BECKER LAWRENCE D		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

The pilot stated that he was performing a normal landing to runway 27. During the landing flare, the airplane veered to the right, proceeded off the edge of the runway, down a grass slope, and into the airport boundary chain link fence. Airport weather observations recorded at the time of the accident were winds 230 at 10 knots, and clear sky. The airplane had no mechanical failures or malfunctions during the flight.

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Accident Rpt# CEN12LA120	01/01/2012 1530 CST	Regis# N9021R	Lohn, TX		
Acft Mk/Mdl BELL-CONTINENTAL COPTERS INC. 47G2	Acft SN CCI-165	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending	
Eng Mk/Mdl LYCOMING VO-435-A1F		Fatal 0	Ser Inj 2	Flt Conducted Under: FAR 091	
Opr Name: SKY HORSE HELICOPTERS INC	Opr dba:			Aircraft Fire: NONE	

Narrative

On January 1, 2012, about 1530 central standard time, a Bell-Continental Copters Inc. 47G2, N9021R, operated by Sky Horse Helicopters Inc., was substantially damaged during a forced landing following a loss of tail rotor effectiveness near Lohn, Texas. Visual meteorological conditions prevailed at the time of the accident. The 14 Code of Federal Regulations Part 91 aerial observation flight was not operating on a flight plan. The commercial pilot and passenger sustained serious injuries. The local flight departed from Brady, Texas, at time unknown.

A Federal Aviation Administration inspector examined the wreckage on-scene. The tail rotor gearbox did not operate when it was rotated. The gearbox is going to be retained for detailed examination.

At 1535, the recorded weather at the Curtis Field Airport, near Brady, Texas, was: Wind 340 degrees at 12 knots; visibility 10 statute miles; sky condition clear; temperature 13 degrees C; dew point -6 degrees C; altimeter 30.52 inches of mercury.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN11LA472	07/09/2011 1300 CDT	Regis# N50575	Lacassine, LA		
Acft Mk/Mdl CESSNA 150J		Acft SN 15069406	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR 0-200		Acft TT 5081	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091	
Opr Name: LIVINGSTON ARR L		Opr dba:		Aircraft Fire: NONE	

Narrative

On July 9, 2011, about 1300 central daylight time, a Cessna 150J, N50575, was substantially damaged during a forced landing following a loss of engine power near Lacassine, Louisiana. The commercial pilot and passenger were not injured. The airplane was registered to and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed and a flight plan had not been filed. The cross-country flight had originated from the Lake Charles Regional Airport (LCH), Lake Charles, Louisiana, at 1230, and was destined for the Welsh Airport (6R1), Welsh, Louisiana.

According to the pilot, prior to departure, he estimated that the airplane contained about 9 gallons of fuel. A ladder was not available so a visual check was not performed. Approximate 30 minutes after departure the airplane's engine lost power and the rpm dropped to approximately 1,500 rpm. Unable to maintain altitude the pilot performed a forced landing to a cane field. During the landing, the airplane nosed over and came to rest in an inverted position. During impact, the airplane's fuselage, empennage, and both wings sustained substantial damage.

A Federal Aviation Administration (FAA) inspector performed a postaccident examination of the airplane. According to the inspector, approximately 3 gallons of fuel were recovered from the airplane's fuel tanks. Neither of the two fuel tanks had been compromised during the accident and both fuel caps were found securely fastened. There was no smell of fuel and no noticeable fuel blight on vegetation at the accident site. The inspector further reported that he found no mechanical anomalies with the airplane's airframe or engine that would have prevented the airplane from operating normally.

According to the airplane's Type Certificate Data Sheet (TCDS), the airplane could accommodate 26 gallons of fuel, of which 21.5 gallons were usable. The remaining 4.5 gallons were considered unusable fuel.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR12CA049	11/28/2011 1538 PST	Regis# N7952A	Napa, CA	Apt: Napa County Airport APC
Acft Mk/Mdl CESSNA 172K		Acft SN 17258146	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-320 SERIES		Acft TT 7363	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: STRATUS AVIATION, LLC		Opr dba: WINGS FLIGHT SCHOOL		Aircraft Fire: NONE
				AW Cert: STN

Narrative

The student pilot stated that this was his fourth solo flight and he had accumulated about 2 hours of solo flying. He flew to a nearby airport for touch-and-go landing practice and was planning a standard rectangular pattern. As he approached the airfield, an air traffic control tower operator instructed him to land straight in. This was the student pilot's first attempt at a straight-in landing and he had difficulty stabilizing the airplane's flight path before touchdown. The airplane landed hard, bounced, and departed the left side of the runway. The airplane rolled into muddy terrain, bending the nose wheel landing gear mounting structure and the engine firewall.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA11CA341	06/12/2011 1425 CDT	Regis# N2740Q	Bentonia, MS		
Acft Mk/Mdl CESSNA 182K		Acft SN 18257940	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR O-470 SERIES		Acft TT 5260	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091	
Opr Name: ARIAS CLAUDIA S		Opr dba:		Aircraft Fire: NONE	
				AW Cert: STN	

Narrative

According to the pilot, she flew to the airport earlier as a passenger. She then performed a preflight, and began to start the engine. After several attempts to start the engine, she leaned the mixture setting, advanced the throttle, and attempted another start. Subsequently, the engine started and she advanced the mixture and throttle controls. The engine increased to a high rpm setting, and the airplane moved forward and to the left. The pilot further stated that she attempted to stop the airplane with the brakes; however, the pilot seat slid aft and she was unable to reach the brake pedals. The airplane impacted equipment located near the parked airplane, nosed over, and came to rest inverted which resulted in substantial damage to the fuselage, tail, and wings.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN10LA389	07/08/2010	2006 CDT	Regis# N2157S	Houston, TX	Apt: Ellington Field Airport EFD
Acft Mk/Mdl CESSNA 210-L			Acft SN 21061118	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL IO-520			Acft TT 5969	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 135
Opr Name: AIR TRANSIT SOLUTIONS LLC			Opr dba: AIR TRANSIT SOLUTIONS LLC		Aircraft Fire: NONE

Narrative

On July 8, 2010, at 2006 central daylight time, a Cessna 210L, airplane, N2157S, was substantially damaged when its right main landing gear collapsed while landing at Ellington Field Airport (EFD) Houston, Texas. The pilot, who was the only occupant, was not injured. The airplane was registered to a private individual and was operated by Air Transit Solutions LLC. Visual meteorological conditions (VMC) prevailed at the time of the accident and an instrument flight rules (IFR) flight plan was filed for the 14 Code of Federal Regulations Part 135 on-demand cargo flight. The airplane departed the Castroville Municipal Airport (CVB) Castroville, Texas, at 1700 and was en route to EFD.

During approach to EFD, the pilot moved the landing gear position handle to the down position, the hydraulic gear motor started, and the landing gear started to extend. The pilot did not receive a green gear down indicator light and he visually confirmed that the landing gear did not appear to be fully extended. The pilot then executed a go-around and departed the traffic pattern to trouble shoot the gear extension problem. The pilot conferred with his company via radio and completed a number of checklist items including a "G maneuver". All of the attempts to extend the landing gear did not work, so the pilot prepared for a gear-up landing.

During touchdown the left main landing gear and the nose landing gear remained down and locked and the right main landing gear collapsed. The airplane veered off the right side of the runway and came to rest in a grassy area adjacent to the runway. During the landing, the right wing contacted the ground resulting in substantial damage to the right wing and the right horizontal stabilizer.

The mechanism for landing gear extension and retraction in the Cessna 210L is accomplished by hydraulic actuators powered by an electrically driven hydraulic power pack or by use of an emergency extension hand pump. Sufficient hydraulic fluid under pressure is required to operate the hydraulic actuators and to operate the up and down locks. During examination of the hydraulic system a hydraulic line for the landing gear was found separated from its respective fitting. The separated line and adjacent wheel well area were found saturated with hydraulic fluid.

The manufacturer's maintenance manual requires that all rubber hydraulic lines should be replaced each 1000 hours or five years. During a review of the airplane's maintenance records, there was no annotation found that indicated that rubber hydraulic lines had been replaced within the manufacturer's recommended interval. Visual examination of the separated line showed that it did not appear to have been recently replaced, but this examination was not conclusive with regard to the length of service of the installed hydraulic line.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN11FA428	06/29/2011 1523 MDT	Regis# N2344C	Thornton, CO		
Acft Mk/Mdl CESSNA R182		Acft SN R18200156	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl LYCOMING 0-540 SERIES		Acft TT 10091	Fatal 1	Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: SALIL SINHA		Opr dba: ALL AMERICAN AERIALS, LLC	Aircraft Fire: GRD		AW Cert: STN

Narrative

HISTORY OF FLIGHT

On June 29, 2011, at 1523 mountain daylight time, a Cessna R182, N2344C, impacted an open field in Thornton, Colorado. The commercial pilot, the sole person on board the airplane, was fatally injured. A post impact fire ensued and the airplane was substantially damaged. The airplane was registered to Julair, LLC, doing business as All American Aerials, Incorporated, and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a business flight. Visual meteorological conditions prevailed for the local flight which was being operated without a flight plan. The flight departed Front Range Airport (FTG), Watkins, Colorado, approximately 1425.

The pilot's wife said she spoke with him by telephone just before he took off. She said that he told her that he was going to go up and "shoot a couple of thousand pictures." She said that he voiced no concerns about the weather or how his airplane was performing.

Approach control radar recorded a track depicting a Visual Flight Rules 1200 code at the time and in the area where the airplane would have been. The radar track showed the airplane come out of FTG (elevation 5,516 feet), fly up to the Thornton area, and begin a series of turns. The airplane was operating at an altitude between 5,800 to 6,300 feet mean sea level (msl) and a groundspeed of approximately 110 knots.

A review of radar information for the last 8 minutes of the flight, showed the airplane maneuvering just south of the E-470 toll way 2.23 miles northeast of the accident site at an altitude of 6,000 feet msl. The airplane made several orbits around the area of East 138th Court and Boston Street. At 1516:03, the airplane turned west to a heading of approximately 260 degrees. The airplane continued west at an approximate groundspeed of 112 knots until 1517:58, when the airplane made a left turn to the south. The airplane continued south on an approximate heading of 170 degrees for two and a half minutes until reaching 104th Avenue. The airplane turned northeast on an approximate 045 degree heading and continued northeast until 1521:03. The airplane then turned north and flew just east of Quebec Street at an altitude of 5,500 feet msl and a groundspeed of 94 knots until reaching 123rd Avenue. The airplane then made a left turn to the south. At 1521:54, the airplane disappeared from radar. The airplane's last recorded altitude was 5,300 feet.

Witnesses said the airplane was maneuvering over the Thornton area at a low altitude at the same time that high wind suddenly occurred on the surface. One witness said he saw the airplane's wings "dipping" up and down, and the airplane suddenly banked steeply to the left before impacting the ground. Several witnesses said that after the airplane impacted the ground, it exploded and the fire started.

PERSONNEL INFORMATION

The pilot, age 41, held a commercial pilot certificate with single and multi engine land, instrument airplane ratings. The pilot reported on renewal of his pilot insurance policy on December 6, 2010, a total flying time of 18,000 hours and 8,200 hours in the Cessna 182. The policy renewal indicated the pilot successfully completed a flight review on July 5, 2011. Pilot logbooks were never recovered and were suspected destroyed in the airplane.

The flight instructor who gave the pilot his last flight review said that that the pilot was a step above other pilots that he gave flight reviews to. He said that the day the pilot came to him for his flight review; the pilot told him that this was a checkride for him and he wanted to do everything that was in the Practical Test Standards for a private pilot. The pilot performed departure stalls, traffic pattern stalls, slow flight, turns around a point, and patterns and landings. The flight instructor said the pilot showed good knowledge and although he was not sure, thought he had some professional flight training.

Federal Aviation Administration pilot medical records indicated the pilot completed a class 2 physical in April, 2010.

A few days prior to the accident, the pilot spoke to another pilot that was based at Front Range Airport. The pilot told him that he was taking photographs of residential and commercial real estate from his airplane with a digital camera. The pilot told him that he had business in Colorado and had been in the area for about a week. The pilot told him how he flew the airplane and took photographs out of the pilot window at the same time. The pilot told him he had been doing it

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for some time and was pretty good at it. The pilot also told him of a time when while he was taking pictures, his airplane struck a guy wire. The pilot told him that it hit the wing just outside of the strut, but he was able to fly his airplane back and land it without incident.

The pilot's wife spoke to the pilot by cellular telephone approximately 10 minutes before the pilot took off. She said that he was in good spirits and did not indicate that he was concerned with the weather conditions or the airplane's capabilities. She also said that he was in good health.

AIRCRAFT INFORMATION

The airplane was a 1978 Cessna model R182. Airframe and engine logbooks were not recovered and were suspected destroyed in the airplane.

A review of work orders reflecting maintenance performed by a repair station at the pilot's home airport in Marshfield, Wisconsin, dating back to May 2008, showed that an annual inspection was performed in April 2010. At the annual inspection, the airframe had 10,091.4 total hours. Minor maintenance was performed on the airplane by the repair station in June, September, and October 2010, and February and March 2011. The last work order, dated March 28, 2011, indicated the repair station cleaned, greased, and cycled the landing gear system and adjusted the rigging on the right nose landing gear door.

METEOROLOGICAL INFORMATION

At 1534, the aviation routine weather report for Denver International Airport (DEN), 12 nautical miles east-southeast of the accident site was winds 190 at 15 knots gusting to 21 knots, visibility 10 miles, thunderstorm, scattered clouds at 8,000 feet msl, broken ceilings at 13,000 and 20,000 feet msl, temperature 32 degrees Celsius, dew point 1 degree Celsius, altimeter 29.99 inches, remarks; thunderstorm beginning 1532, rain beginning 1516 ending 1525, occasional lightning in the vicinity south, thunderstorm in the vicinity south moving northeast, hourly precipitation amount zero inches.

The closest Terminal Aerodrome Forecast (TAF) reporting location to the accident site was Rocky Mountain Regional Airport (BJC). The TAF obtained for the accident time was issued at 1435 and was valid for a 21-hour period beginning at 1500. The TAF forecast for BJC expected wind from 350 degrees at 9 knots, visibility greater than 6 miles, scattered cumulonimbus clouds at 8,000 feet agl, and a broken ceiling at 15,000 feet. Thunderstorms were expected in the vicinity after 1600, with a temporary variable wind at 20 knots gusting to 35 knots, thunderstorm, and light rain, with a ceiling broken at 8,000 feet in cumulonimbus clouds.

At 1038, the National Weather Service (NWS) Forecast Office in Boulder, Colorado, issued a Hazardous Weather Outlook for central and eastern Colorado, which discussed a better chance for showers and thunderstorms developing during the afternoon with the main threat from these showers and thunderstorms being gusts to 50 miles per hour.

At 1225, the NWS Forecast Office in Boulder, Colorado, issued an Area Forecast Discussion for eastern Colorado, which discussed high based convection expected to develop into the afternoon with gusts to 35 knots likely in and near any showers or thunderstorms. Higher gusts were possible based on dry adiabatic mixing and these stronger gusts could cause landing and takeoff delays.

The Denver Center Weather Service Unit issues a Meteorological Impact Statement, valid at the time of the accident for the Denver Air Route Traffic Control Center (ZDV) area, advised that the low-level wind shear and microburst potential between 1300 and 1800 was moderate to high.

COMMUNICATIONS

The pilot received takeoff clearance from Front Range tower prior to his departure. He confirmed the clearance and his intent to depart to the north. No further communications occurred between the pilot and any air traffic controlling agency.

A review of Flight Service Station records indicated the pilot did not contact them for any services.

WRECKAGE AND IMPACT INFORMATION

The airplane impacted in a rolling prairie grass field and came to rest inverted next to a horse pen approximately 330 feet northwest of a house. The elevation of the terrain in the area was approximately 4,800 feet msl.

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The airplane wreckage path was along a common heading of 090 degrees magnetic. The wreckage encompassed an area defined by an initial impact point extending 112 feet to where the airplane main wreckage came to rest.

The first impact was evidenced by a 30-inch long scrape running parallel to the wreckage path followed by a spray of dirt that extended east for approximately 15 feet. In this area were several white colored paint chips.

A second point of impact was located 43 feet east of the initial impact mark. It consisted of an 18-inch wide, 12 inch deep smooth strike in the ground which produced a hole and dislodged a large piece of dirt that was 2 feet in front of the strike. The east side of the hole was smooth and showed gray paint transfer. At the right end of the smooth side of the hole were two parallel running white stripes which equated to the white strips at the airplane's propeller blade tips.

In the immediate vicinity of the hole were large pieces of broken clear Plexiglas. The pieces were clean except for some dirt spray. Also in this area was the airplane's magnetic compass, pieces of the upper engine cowling, broken pieces of the forward windscreen support posts, white colored paint chips, map pages, and personal items.

Approximately five feet left and two feet aft of the hole was the airplane's right wing tip. It was broken longitudinally along the attachment rivets. The position light had been broken out.

From the second impact point extending east for approximately 39 feet was an area of debris which contained more pieces of clear Plexiglas, pieces of the fuselage, pieces of door post, and pieces of paper. At the end of the debris area was the right window frame. It was broken out of the door. The Plexiglas was gone, and it had sustained charring from the fire. Just east of the window frame was the airplane's right cabin door. It was broken out at the hinges, was bent aft and buckled outward, and was charred. The door handle was in the closed and locked position and the locking pin was extended.

The airplane main wreckage consisted of the majority of the airplane's remaining structure. The fuselage remains were oriented on a south-southwesterly heading.

The cowling, cabin, baggage compartment and aft fuselage to just forward of the empennage were consumed by fire. The left wing with exception of the forward spar was consumed by fire. The inboard portion of the right wing to include the fuel tank and flap were consumed by fire. The right wing outboard of the flap to include the right aileron was charred, melted and partially consumed. The main landing gear was charred. The wheels and tires were consumed by fire.

Flight control continuity was confirmed from the aileron actuators to the remains of the mixer bar and control yokes.

The airplane's empennage was inverted and resting on the top of the vertical stabilizer and the tip of left horizontal stabilizer. The horizontal stabilizers and elevator showed heat damage, partial melting, and paint blistering. The left horizontal stabilizer was bent upward approximately 10 degrees at mid span. The vertical stabilizer and rudder also showed heat damage and paint blistering.

Flight control continuity was confirmed from the elevator and rudder to the remains of the rudder pedals and control yokes.

The airplane engine was resting inverted on the upper cowling forward of the consumed cabin area. The firewall and engine mounts were crushed downward and bent aft. The engine was intact and showed heat damage from fire, especially the aft section where the dual magnetos, oil filter, fuel pump, and vacuum pump were installed. The crankshaft was partially fractured just aft of the flange. The propeller hub was intact. Both propeller blades were broken in their mounts and fractured approximately 10 inches outboard of the hub. The hub and blade remains showed heat damage and partial melting.

A 26-inch long section of propeller blade was located 18 feet south of the main wreckage. It was fractured laterally across the face of the blade, approximately mid span. The fracture was consistent with an overload failure. The blade section, which included the blade tip showed chordwise scratches and paint rubs consistent with a ground contact. The section was bent torsionally and showed several nicks in the leading edge.

The airplane wreckage was recovered and transported to a repair station and salvage facility for further examination.

FIRE

A post-impact fire ensued at the time the airplane impacted the ground. The fire burned an area that extended west to east along the airplane's crash path for

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approximately 70 feet, and north to south for approximately 72 feet. The fire continued until county fire fighters arrived on the scene and extinguished the fire.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted by the Adams County Coroner on June 30, 2011. The Coroner concluded the pilot died from blunt force injuries sustained in the crash.

Results of toxicology testing of samples taken were negative for all tests conducted.

TESTS AND RESEARCH

The airplane engine, systems, and instrumentation were examined at Greeley, Colorado. The engine showed heavy impact and fire damage to the accessories, wiring harness, muffler, and exhaust manifold. The case and cylinders were intact. The accessories were removed and the crankshaft and camshaft was rotated from the accessories case. The crankshaft and camshaft rotated normally. All valves, rockers, and pushrods showed normal movement. Thumb compression was confirmed on all 6 cylinders.

An examination of the flap actuator indicated the flaps were at a position approximating 10 degrees.

The landing gear was retracted. The elevator trim actuator found extended 1.4 inches, a position indicating nose up trim.

Flight and engine instruments were charred, melted, and partially consumed by fire. The fuel selector indicator and valve confirmed that the selector was in the "both" position, indicating both wing tanks were supplying fuel to the fuel pump and carburetor.

ADDITIONAL INFORMATION

The Cessna R182 Pilots Operating Handbook shows the minimum stall speed at a weight of 3,100 pounds, most forward center of gravity, zero degrees of flap deflection, and zero degree bank angle to be 42 knots indicated airspeed. With 20 degrees of flaps extended, the stall speed decreases to 30 knots.

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Accident Rpt# ERA11LA416	07/23/2011 752 EDT	Regis# N5191X	Hinesville, GA	Apt: Midcoast Regional Airport LHW
Acft Mk/Mdl CHAMPION 7ECA		Acft SN 692	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING 0-235 SERIES		Acft TT 2015	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: MANNING RICHARD F JR		Opr dba:		Aircraft Fire: NONE

Narrative

On July 23, 2011, about 0752 eastern daylight time, a Champion 7ECA, N5191X, experienced a total loss of engine power after takeoff from the Midcoast Regional Airport (LHW), Hinesville, Georgia. The certificate private pilot sustained serious injuries and the passenger reported minor injuries. The airplane sustained substantial damage to the fuselage and wings. The airplane was registered to and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed and no flight plan was filed. The flight was originating at the time of the accident.

The pilot reported the airplane had climbed to about 900 feet after takeoff when the engine experienced a total loss of engine power. He initiated a turn back towards the airport. During the approach to land, the airplane stalled and collided with an airport fence.

Examination of the wreckage by a Federal Aviation Administration inspector revealed no anomalies with the airframe or flight controls. Examination of the carburetor revealed a large piece of foam from the air filter element was lodged in the carburetor venturi inlet. The FAA Inspector stated the air filter element had been installed improperly resulting in the foam element separating and being drawn into the carburetor inlet.

Review of the airplane logbooks revealed an engine overhaul was completed 31 hours before the accident. According to the pilot, a Brackett Aero Filter air filter element was installed during the engine overhaul.

Review of performance data for the Champion 7ECA revealed the airplane will stall at 44 knots.

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Accident Rpt# ERA10LA506	09/30/2010 1045 EDT	Regis# N567WT	Mathias, WV	Apt: Grant County Airport W99
Acft Mk/Mdl CIRRUS SR22		Acft SN 3440	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONTINENTAL IO-550-N		Acft TT 230	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: MORRIS AVIATION LLC		Opr dba:		Aircraft Fire: NONE

Narrative

HISTORY OF FLIGHT

On September 30, 2010, about 1030 eastern daylight time, a Cirrus SR22, N567WT, was substantially damaged during impact with trees after the pilot activated the Cirrus Airframe Parachute System (CAPS) near Mathias, West Virginia. The certificated private pilot incurred serious injuries and the passenger incurred minor injuries during post-impact egress from the airplane. Instrument meteorological conditions (IMC) prevailed, and an instrument flight rules flight plan was filed for the personal flight, which departed Fayette County Airport (I23), Washington Court House, Ohio, about 0820, and was destined for Grant County Airport (W99), Petersburg, West Virginia. The flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

During post-accident interviews, and in a written statement, the pilot recounted the accident. The pilot stated that he checked the weather via the internet the evening prior to the flight, again the morning of the flight, and a third time just prior to departure from I23. He stated that the weather reports were "not too encouraging" but that the ceilings at W99 were "coming up."

The pilot departed I23, and after approximately two hours of enroute flying, entered a holding pattern at the initial approach fix for the GPS RWY 31 approach at W99, at the published altitude of 5,500 feet msl. The pilot continued to hold for approximately 30 minutes while he waited for the weather to improve, and reported that there was virtually no turbulence until he entered the hold. He was cleared by air traffic control to initiate the approach, and noted that the winds at his altitude were gusting out of the southeast around 40 knots, and that the reported weather at W99 included calm winds.

After crossing OGMEY for the final time, the pilot began descending the airplane from 5,000 feet msl, toward the final approach fix, and he slowed the airplane to 90 knots. During the descent, the turbulence worsened, and as the wings rocked violently, the autopilot disengaged. The pilot watched as the airspeed decreased to around 80 knots, and he thought the airplane might stall, so he "pushed the nose down," added power, and applied "hard" right rudder. He then received a terrain warning, and responded by pulling the nose up, but was unable to level the wings. About that time the pilot realized he had lost control of the airplane, as it pitched nose down in a left bank. He perceived this to be the entry to a spin, and subsequently activated the CAPS. The airplane descended under the parachute and came to rest in trees about 25 feet above the ground, 9.8 nm east of W99.

After attempting to establish radio communications, the pilot and passenger fastened together several luggage tie-down straps and lowered themselves out of the airplane. During the egress, the pilot fell and landed on his back, fracturing two vertebral bones. The passenger sprained his ankle.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with ratings for airplane single engine land, and instrument airplane. He reported 700 total hours of flight experience, 600 hours of which were in the accident airplane make and model. He also reported 82 and 99 hours of actual and simulated instrument flight experience, respectively. Of the 82 hours of actual instrument experience, 6.5 were logged within the 90 days preceding the accident. He also logged a total of 8 instrument approaches during that 90-day period, all of which were conducted in the accident airplane. His most recent FAA third-class medical certificate was issued in February, 2010.

AIRCRAFT INFORMATION

According to FAA records, the airplane was manufactured in 2009. It was equipped with a Continental IO-550-N, 310-horsepower, turbo-normalized reciprocating engine. The pilot reported to the FAA that the airplane's most recent annual inspection was conducted in July, 2010.

METEROLOGICAL INFORMATION

The National Weather Service (NWS) Boston Area Forecast described a warm front extending over the region, with the forecast for West Virginia indicating

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overcast clouds at 3,000 feet msl with cloud tops to 30,000 feet, visibility 4 miles in moderate rain and mist; with a slight improvement in ceiling and visibility by 1400. Marginal visual meteorological conditions (MVMC) were expected to continue through the evening. The forecast was amended by AIRMET Sierra for IMC over the area. The NWS had AIRMETs Sierra and Tango current over the region for IMC, mountain obscuration conditions, and moderate turbulence below 15,000 feet. The conditions were expected to continue through 1700. Further east, over Maryland and Virginia, an AIRMET for low-level wind shear and strong surface winds was in effect, as well as a Convective SIGMET for an area of embedded severe thunderstorms, a weather watch for the potential for severe tornadic thunderstorms, as well as a SIGMET for high altitude turbulence.

The closest terminal area forecast to the to the accident site was from Elkins-Randolph County Airport (EKN), Elkins, West Virginia, located about 34 nautical miles west of W99. The forecast prior to the flight's departure expected MVMC to IMC to prevail due to light to moderate rain and mist, with broken to overcast ceilings.

The NWS Surface Analysis Chart for 1100 depicted the accident site ahead, or west, of a warm front associated with a deepening low pressure system over the Virginia and North Carolina boarder south of the accident site. Clouds and precipitation were predominating over the region, with severe thunderstorms over the Atlantic coastal states and extensive IMC over West Virginia, Pennsylvania, Maryland, and Virginia.

The NWS hourly Radar Summary Chart for 0919 depicted an extensive area of weather echoes over the area, with a few areas embedded intense to extreme intensity precipitation echoes in the vicinity of West Virginia. The NWS Sterling, Virginia (LWX) WSR-88D base reflectivity images surrounding the period of the accident depicted an area of echoes of 25 to 35 dBZ "light to moderate" intensity echoes over KW99 and the accident site.

The 0800 upper air sounding for Washington/Dulles International Airport (IAD), Sterling, Virginia, located about 70 nautical miles east of the accident site, depicted a saturated environment from the surface to approximately 18,000 feet msl. A defined frontal inversion was noted from the surface to about 1,300 feet msl, with light surface winds below the inversion and a rapid veering of the wind to the south and increase in wind speed with height.

There was an urgent pilot report from a pilot operating a Cirrus SR22 at 0944 in the vicinity of Elkins, West Virginia, or approximately 25 miles northeast of the W99, reporting severe turbulence at 8,000 feet.

The 1042 weather observation at W99, included calm winds, 3 statute miles visibility in heavy rain, an overcast ceiling at 800 feet, temperature 16 degrees C, dew point 13 degrees C, and an altimeter setting of 29.61 inches of mercury. The remarks section indicated an hourly precipitation of 0.25 inches and there were no remarks indicating that thunderstorms or lightning were present.

During a telephone interview, the airport manager of W99 estimated that, about the time of the accident, the ceiling was approximately 300 feet. He stated that he could not see the end of the runway from his location on the airport, which he estimated to be a distance of about 2,000 feet.

The pilot indicated he obtained a self briefing on the weather through the internet on the evening before and twice on the morning prior to departure. He indicated he was aware of the reported and forecast conditions.

AIRPORT INFORMATION

The GPS RWY 31 instrument approach procedure at W99 was arranged as a basic 'T', with initial approach waypoints oriented perpendicular to the final approach course. The OMGEY intersection was an initial approach fix (IAF) / intermediate fix (IF) with a right-turn holding pattern oriented along the final approach course, and was located about 14 nautical miles west of the W99 runway 32 threshold. The final approach fix, PADOH, was located 5.2 nautical miles northwest from OMGEY, along the final approach course. The minimum altitude prior to crossing OMGEY was 5,500 feet, and the minimum altitude prior to crossing PADOH was 4,500 feet.

WRECKAGE AND IMPACT INFORMATION

The airplane came to rest suspended approximately 25 feet above the ground among trees on sloping terrain. The CAPS remained attached to the airframe. The fuselage, horizontal stabilizer, and left elevator were substantially damaged during the impact.

ADDITIONAL INFORMATION

Recoverable Data Module

The airplane was equipped with a recoverable data module (RDM), which recorded numerous parameters a sample rate of 1 hertz. The RDM contained data from the previous 145 hours that the airplane was powered. According to the RDM, the airplane departed I23 about 0818 EDT and climbed to a cruise altitude of 9,000 feet, reaching it at 0827. Pitot heat was activated during cruise at 0858:30 and remained on for the duration of the flight. During cruise, the autopilot and flight director were active. At 0915 the airplane began descending, leveling off at 7,000 feet and again at 6,000 feet.

At 1001, the airplane began a series of right turns consistent with a holding pattern around the OMGEY intersection that lasted until approximately 1021. At approximately 1028 the airplane descended to about 5,200 feet and began tracking toward the PADOH intersection, with the flaps configured to the 50-percent position. At this time the autopilot was engaged in altitude hold vertical mode and global positioning system lateral mode with approach coupled. Over the next 1.5 minutes, the airspeed gradually decreased from around 115 knots to around 80 knots, while the normalized angle of attack increased from around 0.075 to around 0.800.

At 1029:24, the autopilot disengaged while the airplane was flying at an indicated airspeed of 76 knots and a normalized angle of attack of 0.811. Five seconds later, the stall warning briefly activated, at an indicated airspeed of 86 knots and a normalized angle of attack of 0.814. Over the next 17 seconds the airplane rolled 46 degrees left wing down, followed by 42 degrees right wing down. The airplane then rolled left while simultaneously pitching to 25 degrees nose up before the stall warning again activated continuously for 13 seconds. While the stall warning was active, the airspeed decreased from 79 knots to 64 knots, before increasing again to 88 knots, and the normalized angle of attack increased from 0.768 to 0.998, before decreasing again to 0.695 one second after the stall warning deactivated. The pitch then began to decrease to 86 degrees nose down while the reaching a maximum bank of 153 degrees left wing down at 1030:12. During this time the indicated airspeed reduced from 79 knots to 64 knots, before increasing again as the airplane continued to pitch nose down. The airplane then began to pitch up toward a level attitude, while the airspeed increased from 88 knots to 171 knots over a period of 8 seconds. During the descent, the airplane reached a vertical speed of -12,000 fpm and the normal acceleration (g-force) increased to 3.29 g's. The CAPS handle was activated at 1030:21, while the airplane's attitude was 2 degrees left wing down, the pitch was 2 degrees airplane nose up, and the airspeed was 171 knots. The CAPS rocket deployed one second later, at an altitude of 4,000 feet msl (about 1,200 feet agl). The recorded data ended at 1031:26.

Autopilot Disconnect

The accident airplane was equipped with a Garmin GFC 700 Automatic Flight Control System, which was fully integrated with the airframe manufacturer's avionics system architecture. According to the airplane's pilot operating handbook, the minimum speed for autopilot operation was listed as 80 knots.

According to the airframe manufacturer, an autopilot disconnect could be initiated by several manual or automatic methods including (but not limited to): manually activating one of the autopilot disconnect switches on either control stick; manually toggling the "AP" button on the autopilot mode controller; manually activating the Take Off / Go Around button on the power lever; automatically by exceeding roll or pitch engagement limits of +/- 75 and +/-30 degrees, respectively; or automatically by the activation of the stall warning.

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Accident Rpt# ERA12CA110	12/15/2011 1940 EST	Regis# N788SR	Farmville, VA	Apt: Farmville Regional Airport FVX
Acft Mk/Mdl CIRRUS DESIGN CORP SR22		Acft SN 2887	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR IO-550-N		Acft TT 665	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: NEIL O'DONOHUE		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

According to the pilot, the intention of the flight was to become night current. He was on the global positioning system approach, and was lined up on the runway centerline, with the approach lights in sight. At 500 feet above ground level, the pilot extended the wing flaps to the full down position. When the airplane was closer to the ground, the airspeed suddenly decreased and the rate of descent increased, thus the pilot added full power in order to arrest the descent. The airplane, however, impacted trees and the ground approximately 2,000 feet prior to the runway. The airplane bounced twice, and then proceeded to land on the runway. During the landing roll out, the airplane veered off the left side of the runway and came to rest in a grassy area. During the accident sequence, the airplane sustained substantial damage to the wings. The pilot reported there were no preexisting mechanical anomalies with the airplane.

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Accident Rpt# WPR10LA161	03/15/2010 1807 MST	Regis# N3087D	Phoenix, AZ		
Acft Mk/Mdl HEAD BALLOONS INC AX9 118		Acft SN 287	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
		Acft TT 311	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091	
Opr Name: JOHN BENSON		Opr dba: ARIZONA HOT AIR BALLOONS, INC.	Aircraft Fire: NONE		
			AW Cert: STN		

Narrative

HISTORY OF FLIGHT

On March 15, 2010, about 1807 mountain standard time, a Head Balloons, Inc., AX9- 118, N3087D, made a hard, bounced, high wind landing in an open field about 5.3 miles north-northwest of Deer Valley Airport, Phoenix, Arizona (DVT). The balloon's basket tipped over during landing. The commercial certificated pilot exited the basket and was seriously injured. One of the three child passengers and both of their parents sustained minor injuries. Several panels in the balloon's envelope were ripped open, and the balloon was substantially damaged. The fare-paying passengers had contracted for their anticipated hour-long sightseeing flight with the balloon's operator, Arizona Hot Air Balloons, Inc., Phoenix. According to Federal Aviation Administration (FAA) Aircraft Registration Branch personnel, the balloon did not have a valid registration certificate. Its certificate was listed as being in a "pending status." Visual meteorological conditions prevailed, and no flight plan had been filed. The flight was performed under 14 Code of Federal Regulations Part 91, and it originated from a field in northern Phoenix about 1728.

The pilot elected to terminate the sightseeing flight earlier than planned when the local wind speed increased, and the pilot communicated to her ground crew via radio that she intended to land. The pilot advised the passengers that the landing would likely be hard and would likely involve one or more bounces. She directed the passengers how to position themselves for landing.

The pilot reported to the National Transportation Safety Board investigator that the balloon's basket bounced back into the air following its initial touchdown. She attempted to open the envelope's parachute top to expedite the hot air venting process in order to deflate the balloon, but was unable to fully activate it. When the basket touched down the second time, it dragged along the ground and tipped forward.

While the passengers were bent down in the basket, as directed, the pilot attempted to obtain a more substantial grip on the red vent line. The basket was jostling as it passed over small boulders. The pilot stated that she lost her footing when the basket was leaning at a 60-degree forward angle, and she exited the basket. The basket overran her as it dragged in the soil, went across a street, and hit curbs. The balloon finally came to rest upon impacting a roadside gate, which was located about 360 feet east of the initial point of touchdown.

A pilot who was flying in another balloon, and who witnessed the accident, reported that the accident balloon's (parachute) top did not appear to have been opened during landing. The accident balloon's envelope did not promptly deflate.

PERSONNEL INFORMATION

The 49-year-old pilot held a commercial pilot certificate for lighter-than-air free balloon. She did not hold an aviation medical certificate; none was required.

The pilot reported that all of her flight time was obtained flying balloons. Her total flight time was 364 hours, of which 12 hours were in the accident balloon's make and model. During the preceding 90 days, she had flown 12 hours, of which 3 hours were in the accident balloon's make and model.

AIRCRAFT INFORMATION

Registration and Company Information

According to FAA aircraft registration records, the standard category balloon's registration certificate had been terminated months prior to the date of the accident when the balloon was sold. The new owner/operator had not completed the required registration procedure by the accident date. Several months after the accident (in July 2010) the FAA issued the new owner a registration certificate.

The private individual (not the pilot), who owned the balloon and the balloon company, informed the Safety Board investigator that he solicited fare-paying

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passengers for balloon rides in the operation of his business. He used the name "Arizona Hot Air Balloons, Inc." in his Internet advertisements. The balloon company owner stated that his firm was not, in fact, incorporated.

Balloon Modification, Documentation and Preflight Procedures

In 2004, the Head Balloons, Inc., model AX9-118, serial number 287 (N3087D), was modified pursuant to FAA supplemental type certificate (STC) number SB00463AT, issued in 1994. This STC allowed the use of specific Cameron Balloons' baskets, burners, and fuel systems with the Head Balloons' envelope. The FAA reported that a Cameron flight manual supplement was a required part of the STC. The supplement was required to be in the basket, along with the Head balloon flight manual (BFM) during flight.

A balloon repairman had authorized use of Cameron basket part number CB301C-6, serial number 9390, on the Head envelope. This basket part number was authorized for use under the STC, according to the FAA. The FAA coordinator reported that no Cameron flight manual supplement was found in the accident balloon.

According to the FAA approved Head BFM, dated September 30, 1987, the balloon was equipped with a parachute top. In section 2.2.8 of the Head BFM, which addresses normal operating procedures, before the inflation process begins the parachute actuation line and cords are to be checked to insure that they are free of knots and tangles.

The parachute top is used to deflate the balloon during landing. In section 2.5.2 of the balloon's landing procedures, the Head BFM states that when landing in moderate or strong wind the parachute top must be held open by maintaining tension on the actuation line until the balloon is deflated.

METEOROLOGICAL INFORMATION

Weather information available to the pilot indicated that at the Phoenix Sky Harbor Airport after 1700, the wind speed was forecast to be variable at 3 knots. Temporarily between 1700 and 2000, it was forecast to be 5 knots.

The closest airport to the accident site is DVT, elevation 1,478 feet mean sea level (msl). It is located about 5.3 miles south-southeast (153 degrees, magnetic) from the accident site. About 14 minutes before the accident, at 1753, DVT reported wind from 310 degrees at 4 knots, 10 miles visibility, and a clear sky. One hour later, the wind speed had increased to 8 knots.

A pilot flying in another balloon observed the accident balloon during its landing. The pilot reported that the local wind speed had increased in the area minutes prior to the accident. The pilot estimated that the wind speed was 12 knots.

WRECKAGE AND IMPACT INFORMATION

The FAA reported that the balloon initially touched down at 33 degrees 45.743 minutes north latitude by 112 degrees 06.763 minutes west longitude. It came to a stop after dragging along uneven terrain over rocks, crossing a street, impacting a curb, and colliding with a crossing gate.

The accident site elevation is about 1,560 feet msl. The magnetic bearing and distance from the initial point of touchdown to the gate is about 68 degrees and 360 feet.

TESTS AND RESEARCH

The FAA inspectors who examined the balloon reported observing two registration certificates in the basket. One certificate bore registration number N9534R, and the other certificate bore number N3087D.

The pilot subsequently reported to the Safety Board investigator that the accident could have been prevented if she had possessed a more complete working knowledge of the balloon's "Smartvent" deflation mechanism and had utilized it. The Cameron BFM associated with N9534R lists a "Smartvent" system as part of its designed fast action deflation system, which is combined with a parachute venting/deflation system.

The accident Head Balloon's envelope in fact was not constructed with a "Smartvent." The Head Balloon incorporates another type of rapid air deflation system,

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which is similar to the patented Smartvent system, according to the Phoenix-based balloon repairman who examined the accident balloon.

FAA inspectors reported to the Safety Board investigator that they observed a deflation activation line, which was connected to a portion of the rapid vent system inside the Head envelope, was incorrectly rigged. The line was found secured to a ring with a knot, located near the top of the envelope. The line was supposed to have been routed through the ring. The knot on the activation line secured the line to the ring. This event would have inhibited the pilot's efforts at venting the balloon by pulling on the line, and it rendered the rapid deflation system partially ineffective.

FAA inspectors further reported that during the pilot's required preflight inspection of the balloon's venting system, the deflation activation line's rigging should have been inspected. During the inspection, the deflation system would not have performed correctly, and the visually apparent improper rigging should have been corrected prior to flight.

The Safety Board investigator's examination of the Head BFM (provided by the operator) revealed that it did not include the FAA approved supplement, dated October 21, 2008. In pertinent part, section 1.12 of this supplement states that helmets are required for all occupants on board and must be worn during emergency procedures. The Head BFM "strongly" recommends that helmets be worn when landing if the wind speed is 10 miles per hour, or greater. In section 4.1 of the operator's Head BFM, the maximum demonstrated surface wind for landing was listed as 5 miles per hour.

Additionally, the operator's Head BFM did not contain appendix 1, which addresses operation of the parachute top balloon's optional auxiliary vent line, called a Quick Vent. The Quick Vent (red webbing) is utilized for faster deflation of the balloon upon landing.

ADDITIONAL INFORMATION

The passenger who arranged for the balloon ride reported to the Safety Board investigator that she had located the balloon company after observing the company's advertisement on the Internet.

The passengers reported they had not been offered use of safety helmets. One of the passengers sustained a head injury upon exiting the balloon's basket.

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Accident Rpt# ERA12CA027	10/14/2011 1600 EDT	Regis# N1339X	Benton, TN	Apt: Chilhowee Gliderport 92A
Acft Mk/Mdl ICA BRASOV IS-29D2		Acft SN 92	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: TAMPA BAY SOARING SOCIETY		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

The pilot of the glider stated that he was returning to the airport at the conclusion of a one-and-a-half hour flight, and approached the airport at a low altitude and slow airspeed. The pilot continued the approach for landing, and struck a telephone wire on the final leg of the traffic pattern. The glider sustained substantial damage to the wing spar and tail boom. The pilot reported there were no mechanical malfunctions or anomalies with the glider.

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Accident Rpt# WPR11LA416	08/18/2011 1430 PDT	Regis# N45725	Lincoln, CA	Apt: Lincoln Regional LHM
Acft Mk/Mdl LUSCOMBE 8-A		Acft SN 2252	Acft Dmg: NONE	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl TELEDYNE CONTINENTAL C65-8		Acft TT 2475	Fatal 1 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: EARL J HODGES		Opr dba:		Aircraft Fire: NONE

Narrative

On August 18, 2011, about 1430 Pacific daylight time, a passenger on a Luscombe 8A, N45725, fell and struck his head on the pavement at the Lincoln Regional Airport (LHM), Lincoln, California, while attempting to hand prop/start the airplane's engine. The passenger subsequently died three days later. The private pilot/owner seated in the airplane was not injured and the airplane was not damaged. The 14 Code of Federal Regulations Part 91 personal flight was preparing to depart at the time, with Paradise Skypark Airport(CA92), Paradise, California, the intended destination.

According to a report submitted to the National Transportation Safety Board investigator-in-charge (IIC), the pilot/owner of the airplane, who occupied the left pilot seat during the attempted engine start, reported that the 87-year-old passenger was experienced at hand propping aircraft, and was to hand prop the engine prior to their departure. The pilot stated that during the passenger's first pull through of the propeller, the engine kicked back and apparently caused [the passenger] to lose his balance and fall backwards on to the pavement, hitting his head when he landed. The pilot stated that when he saw the passenger disappear from his view, he turned the magneto switch to OFF and exited the airplane to see what had happened. The pilot reported that the passenger assured him that he was alright, after which the pilot propped the engine and departed for CA92. The pilot revealed that while en route the passenger spoke as he usually did, and that after they landed and put the airplane in the pilot's hangar, the passenger drove home in his car. The pilot learned that two days after the incident the passenger's wife had admitted him to the local hospital, and that the following day he had passed away. The county medical examiner attributed the immediate cause of death was due to a "subdural hematoma as a result of an accidental fall."

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Accident Rpt# CEN10FA164	03/18/2010 1600 CDT	Regis# N56489	Lewisville, TX		
Acft Mk/Mdl MAULE M-5-235C		Acft SN 7372C	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-540-J1A5D		Acft TT 807	Fatal 1 Ser Inj 1	Flt Conducted Under: FAR 091	
Opr Name: KENNETH GEDNEY		Opr dba:		Aircraft Fire: NONE	
				AW Cert: STN	

Narrative

HISTORY OF FLIGHT

On March 18, 2010, about 1600 central daylight time, a Maule M-5-235C, N56489, nosed over during a water landing on Lake Lewisville, Lewisville, Texas. The pilot sustained serious injuries and the passenger was fatally injured. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed and no flight plan was filed. The local flight departed the Addison Airport (ADS), Dallas, Texas, around 1530.

According to the pilot, as he approached for the "glassy water landing," the airplane was performing normally. The airplane touched down with no skips or bounces and quickly nosed over and began to fill with water. The pilot attempted to kick the doors open, but was unable. He could not recall how he got out of the airplane, but remembered being in a boat. When asked about the position of the landing gear before landing, the pilot responded that he did not remember anything about the position of the landing gear. The pilot later reported that after his departure from ADS, he placed the landing gear position handle in the "UP" position.

An eyewitness in a nearby boat observed the airplane nose over and stopped to assist the occupants. Once near the airplane he observed the pilot unconscious with his head underwater. He jumped in the water and pulled the pilot to his boat where he proceeded to perform cardiopulmonary resuscitation (CPR), until the pilot's breathing was restored.

Two witnesses riding eastbound on US Highway 380 reported that around the time of the accident, they observed a small red and white airplane flying southbound about 20 to 30 feet above the bridge. The airplane was descending and it appeared as if the wheels were in the extended position.

Another witness reported that while heading west out of the Pier 121 marina, he observed a small pontoon equipped airplane flying northbound over the boat he was in. As the plane flew over, he noticed that the landing gear was sticking out below the floats. The witness estimated the airplane to be around 1,000 feet in altitude, and believed that it was preparing to land.

A fifth witness heard a loud noise. As she looked towards the lake she observed an airplane flipping over. The witness reported that approximately 2 minutes later she could only see the wheels and the bottom of the airplane extending out of the water.

PERSONNEL INFORMATION

The pilot, age 54, held an airline transport pilot certificate for airplane multiengine land, a commercial certificate with ratings for airplane single-engine land, single-engine sea, and rotorcraft helicopter, and a flight instructor certificate for single and multiengine airplane. His last Federal Aviation Administration (FAA) second-class medical was issued on April 11, 2008, with the limitation, "Must Wear Corrective Lenses."

The pilot reported a total flight time of 12,000 flight hours; of which 75 hours were in the accident make and model of airplane. He logged 30 hours in the last 90 days and 10 in the last 30 days. His last noted flight review was completed June 8, 2008.

AIRPLANE INFORMATION

The 1983-model Maule M-5-235C, serial number 7372C, was a high wing, tube and fabric airplane, mounted on Baumann amphibious floats, and was configured for four occupants. The airplane was powered by a Lycoming O-540-J1A5D engine, serial number L-19138-40A, rated at 235 horsepower, and was driving a two-bladed constant speed Hartzell propeller.

According to the airframe logbook, the airplane's most recent annual inspection was completed in December, 2009, with an airframe total time of 806.1 hours. At

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the time of the accident, the airframe had accumulated 807 hours.

The engine logbook revealed that the engine had been inspected in accordance with a 100 hour inspection in December, 2009. At the time of the accident, the engine had accumulated approximately 1,005 hours since major overhaul and 139.4 hours since propeller overhaul.

METEOROLOGICAL INFORMATION

At 1547, the automated weather observing system at ADS, located 10 nautical miles south of the accidents site, reported winds light and variable, 10 miles visibility, clear of clouds, temperature 61 degrees Fahrenheit (F), dew point 36 degrees F, and a barometric pressure setting of 30.07 inches of Mercury.

WRECKAGE AND IMPACT INFORMATION

Inspectors from the FAA responded to the accident site and reported that the airplane had come to rest inverted and partially submerged in water. In addition, the inspectors reported that the landing gear was found in the extended position. The airplane had sustained substantial damage to the vertical stabilizer, engine firewall, and both wings. Flight control continuity was established to all flight controls and to the water rudders. The water rudders were found in the retracted position.

The floats were equipped with 4 visual landing gear position indicators; one for each wheel that could be observed from the cockpit. Each was operational and indicated that the wheels were in the extended position.

MEDICAL AND PATHOLOGICAL INFORMATION

The FAA's Civil Aerospace Medical Institute performed forensic toxicology on specimens from the pilot and no drugs of abuse were detected.

ADDITIONAL INFORMATION

The following was noted on a checklist for the Baumann amphibious floats:

E. BEFORE LANDING -- ON WATER

3. Landing Gear Position - CONFIRM VISUALY (Red mark in the UP indicator holes on top deck of each float for the main gear.
Nose gear UP - tire positioned at nose bumper)

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Accident Rpt# ANC11LA100	09/08/2011 1400 ADT	Regis# N2694P	Galena, AK		
Acft Mk/Mdl PIPER PA-18A 150		Acft SN 18-4382	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360 SERIES			Fatal 0	Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: GEORGE CAMPBELL		Opr dba:		Aircraft Fire: NONE	
				AW Cert: STN	

Narrative

On September 8, 2011, about 1400 Alaska daylight time, a Piper PA-18A airplane, N2694P, sustained substantial damage during an off-airport emergency landing, about 60 miles southeast of Galena, Alaska, following a complete loss of engine power. The airplane was being operated by the pilot as a personal cross-country flight under the provisions of 14 Code of Federal Regulations, Part 91, when the accident occurred. The solo pilot was not injured. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed. The airplane had departed a hunting camp en route to Galena, about 1340.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on September 12, the pilot said the accident flight was the second flight of the day. Earlier in the day he had attempted to fly to Galena, but was forced back to the camp by weather. The pilot had borrowed the airplane for the hunting trip, and was unfamiliar with the fuel system. The airplane was equipped with modified fuel tanks and a digital fuel totalizer. He said the design of the tanks precluded visual inspection of the fuel quantity, but according to the totalizer he should have had enough fuel for the trip. After the loss of engine power, the pilot attempted to land on the tundra, and the airplane nosed over.

During the nose over, the airplane received substantial damage to the vertical stabilizer and empennage.

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Accident Rpt# ERA11LA200	03/19/2011 1515 EDT	Regis# N9692D	Hollywood, FL	Apt: North Perry Airport HWO
Acft Mk/Mdl PIPER PA-18A 150		Acft SN 18-6800	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-360-C2A		Acft TT 14678	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: VAN WAGNER AERIAL MEDIA LLC		Opr dba:		Aircraft Fire: NONE

Narrative

On March 19, 2011, about 1515 eastern daylight time, a Piper PA-18A "150", N9692D, registered to and operated by Van Wagner Aerial Media LLC, was landed hard during a forced landing, following a reported total loss of engine power, at North Perry Airport, Hollywood, Florida. Visual meteorological conditions prevailed at the time and no flight plan was filed for the 14 Code of Federal Regulations (CFR) Part 91 banner tow flight. The airplane sustained substantial damage and the commercial pilot, who was the sole occupant, was not injured. The flight originated about 1 hour 20 minutes earlier from North Perry Airport.

The pilot stated that after departure he flew a banner for the prescribed time and proceeded to return to North Perry Airport where he intended to drop the first banner and pick up a second banner. About 1 mile before arrival at the airport, he moved the fuel selector to the left tank position and placed the mixture control to the full rich. After dropping the first banner he remained in the banner traffic pattern and deployed a hook for the second banner. He turned base and final then descended in order for the hook to catch the banner tow rope suspended between poles. He slowly added full power and rotated to begin to climb but the engine, which powered up some, "completely shut off", with no sputtering noted. At that time the airplane was between 50 and 100 feet above ground level. He immediately applied forward elevator control input and verified that the mixture was full rich and the fuel selector was on the left tank. Prior to touchdown, he applied aft elevator control input but there was no response and the airplane landed hard.

Personnel from the operator arrived immediately after the crash and secured the airplane which included moving the fuel selector from the left to off position, and moving both magneto switches from on to off positions. The battery was placed from the on to off position, and the throttle control which was in the full forward position was moved to the idle or throttle closed position. The mixture control which was leaned out slightly was moved to the idle cut-off position, and the carburetor heat which was extended approximately 1/2 inch, was pulled out to 3/4 inch extension. With the fuel selector in the off position, the fuel strainer was checked and only drips of fuel were noted. The fuel selector was placed in the left and right positions and fuel flowed normal.

A Federal Aviation Administration (FAA) airworthiness inspector reported the airplane impacted the ground west of runway 18R, slide 23 feet, nosed up striking the propeller, then came to rest upright. Both wings and fuselage sustained substantial damage. An adequate quantity of fuel was noted in the left, and two right fuel tanks. No fuel leakage was noted at the accident site. During recovery of the airplane fuel leakage was noted from the right fuel vent.

Following recovery of the airplane, with FAA oversight, fuel was noted in the carburetor bowl. Throttle control cable continuity was confirmed from the cockpit to the carburetor. With the engine installed in the airframe, a replacement propeller was installed, and the engine was started and operated to 1,500 rpm. During the engine run, the fuel selector was moved to the left and right positions with no engine discrepancies noted.

A surface observation weather report taken at the accident airport at 1453, or approximately 22 minutes before the accident, indicates in part that the temperature and dew point were 26 and 14 degrees Celsius, respectively.

Federal Aviation Administration Special Airworthiness Information Bulletin (SAIB) CE-09-35, dated June 30, 2009, related to carburetor icing prevention, indicates that based on the temperature and dew point readings about the time of the accident, the conditions were favorable for serious icing at glide power.

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Accident Rpt# ERA11FA210 03/25/2011 1352 EDT Regis# N7746K Elgin, SC
Acft Mk/Mdl PIPER PA-20 Acft SN 20-569 Acft Dmg: SUBSTANTIAL Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-290 D Acft TT 1743 Fatal 1 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: BUERGEL WOLFGANG Opr dba: Aircraft Fire: GRD

Narrative

HISTORY OF FLIGHT

On March 25, 2011 about 1352 eastern daylight time, a Piper PA-20, N7746K, registered to a private individual, experienced a loss of engine power in the vicinity of Elgin, South Carolina, and collided with trees during a forced landing. The airplane was operating as 14 Code of Federal Regulation Part 91 personal flight. The airplane sustained substantial damage and a post crash fire ensued. The certificated commercial pilot was killed. Visual meteorological conditions prevailed and no flight plan was filed. The flight originated from Bloecher Farm Airport (92NY) Strykersville, New York, at an undetermined time with a final destination of Lakeland, Florida.

A witness stated he heard the airplanes engine "struggling." The airplane crashed and within 5 to 7 seconds, it exploded. Another witness stated he was standing outside his shop with a customer and heard a small plane flying overhead. The airplane was flying at a slow airspeed between 200 to 300 feet north of Interstate 20 traveling in the direction of Columbia, South Carolina. The engine was surging up and down or sputtering like it was "running out of fuel." The airplane passed behind the shop and he observed the nose pitch up to an attitude between 35 to 40 degrees. The nose then pitched straight down. At first he thought the pilot would pull up, but when the airplane went below the tree line, he knew it was going to crash

PERSONNEL INFORMATION

The certificated commercial pilot, age 71, held a commercial pilot certificate with ratings for airplane single-engine land and instrument airplane, issued on July 13, 2009. The pilot was issued a flight instructor certificate with a rating for airplane single-engine on August 15, 2009, and an airframe and power plant mechanic certificate on July 13, 2008. The pilot's last flight review was conducted on July 9, 2010. In addition, the pilot held a second-class medical certificate with the restriction "must wear corrective lenses," issued on August 2, 2010. The pilot indicated on his application for the second-class medical that he had 7,100 total flight hours.

AIRCRAFT INFORMATION

The Piper PA-20 Pacer is a four place high wing airplane with a tail wheel landing gear, serial number 20-569, manufactured in 1950. A Lycoming O-290-D2, 135 horsepower, horizontally-opposed four-cylinder engine powered the airplane. The last annual inspection was conducted on December 8, 2010. The tachometer at the crash site was destroyed. The total airframe hours at the time of the annual inspection were 1,743 hours. It was not determined when the airplane was last refueled.

METEOROLOGICAL INFORMATION

The Woodland Field Airport (CDN), Camden, South Carolina, 1315 surface weather observation was: wind 230 degrees at 7 knots, visibility 10 miles, clear clouds, temperature 18 degrees Celsius, dew point temperature 4 degrees Celsius, altimeter 29.97 inches HG.

AIRPORT INFORMATION

Over the Hill Airport (12SC), Elgin, South Carolina, is a private use airport located on Old White Road and is located 5 miles southeast of Elgin, South Carolina. The airport elevation is 250 feet. The turf runway 09/27 is 2,400 feet long and 100 feet wide. According to the witness at the shop, the airport is located adjacent to Interstate I-20, south of Jeffers Road which is about 1/2 to 3/4 mile from the accident site.

WRECKAGE INFORMATION

The wreckage was located adjacent to Larry Jeffers Road in Elgin, South Carolina. Examination of the crash site revealed the airplane collided with trees in a nose-down, right wing low attitude. The airplane cart-wheeled through the trees and the outboard left wing collided with several trees. The airplane continued forward about 60 feet and came to rest upright. A post crash fire ensued. The propeller assembly separated from the propeller crankshaft flange and was located behind the main wreckage. One propeller blade was bent aft 6 inches outboard of the propeller hub. Chord wise scarring was present on the cambered and non-cambered side of the propeller blade. The remaining propeller blade was bent aft and chord wise scarring was present on the cambered and non-cambered side of the propeller blade. The crankshaft was bent to the right. The spinner was crushed and exhibited evidence of rotation. "V" cuts were present on the trees along the crash debris line. The right wing collided with the ground and was pushed aft and the left wing was inverted and accelerated forward. The engine assembly was separated from the firewall and displaced to the right. The upper and lower engine cowlings were destroyed. The gascolator was not located.

The cabin windshield was destroyed. Both cabin doors separated from the airplane and were fire damaged. The steel tube fuselage was damaged. All airplane fabric was destroyed. The fuselage frame top section was bent upward at a 45-degree angle. The forward section with the instrument panel exhibited aft crushing. The flight instruments and engine tachometer were destroyed. The left and right forward seats and seatbelts were destroyed. The aft passenger seat area contained an cylindrical tank in lieu of a bench seat assembly, which was partially destroyed by fire. The control wheels and rudder pedals were damaged

and burned. Control continuity was confirmed from the rudder and elevator forward to the cockpit. The engine controls were destroyed. The fuel selector was located on the right main fuel tank. The main landing gear was fire damaged, collapsed, and separated from the airframe.

The right wing was partially connected to the wing root.

The right wing was pushed aft and the fabric had been consumed by fire. The flap and aileron remained attached at all hinge points. Control continuity for the flap and the aileron was traced to the forward cabin area. The flap was in the retracted position. The forward wing strut and leading edge of the wing exhibited impact damage consistent with a tree impact. The main spar and the forward lift strut were bent upward about a 20-degree angle. The right main fuel tank was ruptured and no fuel was present. The fuel cap was located behind the wing and was in the closed position with part of the filler neck attached.

The vertical fin was fire damaged and the rudder was attached at all hinge points. The left and right horizontal stabilizers remained attached to the empennage and both elevators remained attached to both stabilizers. The stabilizer trim indicated 13 threads equating to an approximate nose-down condition. The steerable tail wheel was in place and exhibited heat damage.

The left wing was inverted, partially connected to the wing root and was accelerated forward. The left flap and aileron hinge points were melted. Control continuity for the flap and the aileron was traced to the forward cabin area. The left flap was in the retracted position. The forward and aft wing strut exhibited signatures consistent of a tree strike. The leading edge of the wing was destroyed by fire. The left main fuel tank separated from the wing and was ruptured. Some residual fuel was present in the fuel tank. The fuel cap was located and was in the closed position.

Examination of the engine assembly revealed the left and right engine exhaust tubes were damaged. The muffler remained attached to the engine assembly and the heat shroud was fire damaged. The induction tubes were damaged. The oil pressure screen housing remained attached to the accessory section and was fire damaged. The oil filter screen was removed and was free of contaminants.

The starter remained attached to the engine and was fire damaged. The left and right magnetos remained attached to their respective mounts and were fire damaged. The vent plugs were fire damaged. The magnetos were removed and disassembled. The internal components were fire damaged and could not be checked for spark at the ignition towers. The engine baffling was consumed by fire. All engine cylinders remained attached to the engine and the push rods were intact. The No. 1 and No. 3 valve covers were pushed inward with holes and were fire damaged. The No. 2 and No. 4 valve covers were fire damaged and all valve covers were removed. The upper were removed and exhibited thermal discoloration. They were dark gray in color. The ignition harness was consumed by fire. The oil cooler was fire damaged.

The carburetor was partially attached to its mount. The carburetor was disassembled and there was no fuel in the carburetor bowl. Dark gray soot was present only in the area of the fuel inlet. The right carburetor float separated along the solder joint and the float was thermally discolored. The float was forwarded to the NTSB Laboratory for analysis. The pieces were color-tinted consistent with thermal oxidation at elevated temperatures. Examination of the solder joints, joining the floats to the frame of the clamshell seams, joining the two halves of each float, revealed evidence of solder reflow, solder joint dewetting, and oxidation of dewetted solder base metal. The crankshaft propeller flange was rotated by hand with a breaker bar. Suction and compression were obtained on all cylinders. Valve train continuity was observed through all cylinder rocker arms. The accessory drive gears were observed rotating. Crankshaft and valve train continuity was verified.

MEDICAL AND PATHOLOGICAL INFORMATION

The Office of the Chief Medical Examiner, Newberry Pathology Associates, P.A. Newberry, South Carolina, conducted an autopsy on the pilot on March 26, 2011. The cause of death was multiple blunt force injuries due to an airplane crash. The Bioaeronautical Research Science Laboratory, Federal Aviation Administration, Oklahoma City, Oklahoma performed a postmortem toxicology of specimens from the pilot. No carbon monoxide or cyanide was detected in the blood. No ethanol was detected in the urine. The specimens were negative for basic, acidic, and neutral drugs. Naproxen which is used to treat pain or inflammation caused by arthritis, ankylosing spondylitis, tendinitis and gout was present in the urine.

ADDITIONAL INFORMATION:

Review of the Pilot Operating Handbook states the stall speed with the flaps retracted, with 0 and 10 degrees angle of bank, is 52 mph.

The distance between 92NY and 12SC is 527.7 nautical miles on a straight line heading of 192.5 degrees magnetic. It is not known if the pilot made any en-route stops and there are no known communications along the way with air traffic control. The cruise airspeed is 126 mph or 109 knots. According to the Lycoming Operating Manual for the O-290-D Series engine, the engine will burn 7.5 gallons of fuel per hour at 75 percent power. In a no wind condition, at 109 knots or 126 mph, it would take 4 hours and 50 minutes to fly to Elgin, South Carolina. At 65 percent power the airplane would burn 6.5 gallons per hours and it would take 5 hours and 33 minutes to reach Elgin South Carolina. The airplane is equipped with two 18 gallon fuel tanks for a total of 36 gallons of fuel. The Piper Owners Handbook does not distinguish what amount of fuel may be unusable. Additionally, the Owners Handbook includes fuel consumption planning data for cruise flight but does not include fuel consumption planning data for start, taxi, preflight checks and takeoffs.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA12FA130	12/31/2011 1111 EST	Regis# N7408Z	Jacksonville, FL	Apt: Craig Municipal Airport CRG
Acft Mk/Mdl PIPER PA-25-235		Acft SN 25-3374	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-540-B2C5		Acft TT 6343	Fatal 1 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: FLYING WEANERS INC		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

On December 31, 2011, at 1111 eastern standard time, a Piper PA-25-235, N7408Z, operated by Flying Weaners Inc, was substantially damaged when it crashed in a parking lot and struck a parked vehicle in Jacksonville, Florida. The airplane had departed from the Craig Municipal Airport (CRG) just prior to the accident. Day visual meteorological conditions prevailed and no flight plan had been filed. The commercial pilot was fatally injured. The local banner tow flight was conducted under the provision of 14 Code of Federal Regulations Part 91.

According to several eyewitnesses and a local business security video, the airplane had departed, attempted to pick up the banner once and was unable to do so. On the second attempt the airplane picked up the banner and began the initial climb. When the airplane was approximately 300 feet above ground level the banner was released over airport property, the airplane turned to the left at an approximate 60 degree bank turn, and then began to spin to the right. The airplane was observed on the security video in a right spin, prior to impacting the ground and a parked vehicle.

The airplane impacted the ground in a nose down attitude. Continuity was confirmed to all flight control surfaces from the base of the control column and rudder pedals to their respective control surfaces. The engine remained attached to the firewall; however, the 2-bladed propeller was impact separated and was located approximately 10 feet forward of the main wreckage. The outboard 14 inches of one propeller tip was impact separated and was located directly beneath the airplane's engine. The airplane's fuel tank was breached and devoid of fuel; however, a blue fluid similar to the color of 100 LL aviation fuel was observed at the fuel strainer and underbelly of the airplane. The airplane was also equipped with a 21 gallon ferry bladder tank located in the agricultural chemical hopper directly in front of the cockpit. The fuel tank contained approximately 4 gallons of blue fluid similar to 100 LL aviation fuel and was not compromised. The fuel line leading from the ferry tank to the airplane's fuel tank consisted of clear tubing with a shutoff valve and a transfer pump. The shutoff valve was found in the "ON" position and fuel was leaking from the fittings between the valve and pump.

A Garmin 396 Global Positioning System receiver was located in the airplane and retained for download at the Safety Board's Recorders laboratory.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN11LA642	09/11/2011 1027 EDT	Regis# N5383H	Muskegan, MI	Apt: Muskegon County Airport MKG
Acft Mk/Mdl PIPER PA16-NO SERIES		Acft SN 16-190	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-235			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: AIRCRAFT OWNER/PILOT		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

On September 11, 2011, about 1027 eastern daylight time, a Piper PA-16, N5383H, veered off runway 14 and ground looped during takeoff at Muskegon County Airport (MKG) Muskegon, Michigan. The certificated private pilot and a certificated flight instructor were not injured. The airplane sustained substantial damage to the left wing. The airplane was registered to and operated by the private pilot under the provisions of 14 Code of Federal Regulations Part 91 as an instructional flight. Instrument meteorological conditions prevailed and a visual flight rules flight plan had been filed for the flight destined for Grand Haven Memorial Airpark, (3GM) Grand Haven, Michigan.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA12WA136	11/23/2011	2000 UTC	Regis# HCBHJ	Machala, EC		
Acft Mk/Mdl PIPER PA36-300				Acft Dmg: SUBSTANTIAL	Rpt Status: Unk	Prob Caus: Pending
				Fatal 0	Ser Inj 0	Flt Conducted Under: FAR UNK
Opr Name: AERORIENT FUMIGATION AIR			Opr dba:		Aircraft Fire: NONE	
					AW Cert: STN	

Narrative

On November 23, 2011, about 2000 coordinated universal time, a Piper PA-36-300, Ecuadorian registration HC-BHJ, operated by Aerorient Fumigacion Aerea, was substantially damaged when the pilot made a forced landing following loss of engine power in a banana plantation. Visual meteorological conditions prevailed and no flight plan was filed. The pilot reported no injuries. The flight originated from Machala Airport (MCH) Machala, Ecuador, at an undetermined time.

The pilot stated he was performing his second swath run when he heard an explosion from the engine. He observed smoke and the engine started losing power. He jettisoned his load of chemicals and made a forced landing to the banana plantation.

The investigation is under the jurisdiction of the Government of Ecuador. Further information can be obtained from:

Dirección General de Aviación Civil
Junta Investigadora de Accidentes de la República del Ecuador
Avenida Colón E5-56 y La Rábida
Edificio Ave María Torre Sur
Quito, República del Ecuador

Tel: 593-02-223-8981
www.dgac.gov.ec

This report is for informational purposes, and only contains information released by the Government of Ecuador.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR12LA070	12/27/2011 1530 PST	Regis# N4398K	Concord, CA	Apt: Concord/ Buchanan Field CCR
Acft Mk/Mdl RYAN NAVION		Acft SN NAV-4-1398	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl CONT MOTOR E225 SERIES			Fatal 0 Ser Inj 2	Flt Conducted Under: FAR 091
Opr Name: ROBBINS CHESTER L		Opr dba:		Aircraft Fire: NONE

Narrative

On December 27, 2011, about 1530 Pacific standard time (PST), a Ryan Navion, N4398K, experienced a loss of engine power shortly after takeoff from Buchanan Field Airport, Concord, California. The airplane subsequently landed hard on airport property and was substantially damaged. The owner/pilot was operating the airplane under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The private pilot and passenger were seriously injured. Visual meteorological conditions prevailed, and no flight plan had been filed.

Witnesses reported that during takeoff from runway 32R the airplane was about 250-300 feet above the runway when the engine sounded like it lost power. The airplane was observed making a banking left turn as it descended towards the parallel runway 14R.

The airplane hit the ground in a flat, wings level attitude, and slid approximately 100 feet before coming to rest in the dirt area near the approach end of runway 14R.

The airplane was recovered for further investigation.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR12LA045	11/18/2011 1600 PST	Regis# N9016K	Boulder City, NV	Apt: Boulder City Municipal BVU
Acft Mk/Mdl STINSON 108-1		Acft SN 108-2016	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl FRANKLIN 6A4150 SERIES			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: SALE REPORTED		Opr dba:		Aircraft Fire: NONE
				AW Cert: STN

Narrative

On November 18, 2011, about 1600 Pacific standard time, a Stinson 108-1, N9016K, ground looped while taxiing following landing on runway 27 at the Boulder City Municipal Airport, Boulder City, Nevada. The airplane was substantially damaged, and the airline transport certificated pilot was not injured. The flight was performed under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed, and no flight plan was filed. The pilot had just purchased the airplane and he was en route home during the personal flight. The flight originated from Cedar City, Utah, about 1330.

The pilot initially reported to the National Transportation Safety Board investigator that his airplane had sustained minor damage. He subsequently reported that the airplane experienced a brake failure during the landing roll.

An examination of the airplane by Federal Aviation Administration personnel revealed that the airplane was substantially damaged, and a brake system examination is in progress.