

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# GAA17CA466	08/02/2017 1325 CDT	Regis# N128LA	Uvalde, TX	Apt: Garner Field UVA
Acft Mk/Mdl AB SPORTINE AVIACIJA LAK 17-A		Acft SN 151	Acft Dmg: DESTROYED	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl SOLO 2350		Acft TT 430	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: MILLER, KEITH R.		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPE

Events

1. Initial climb - Glider tow event

Narrative

The glider pilot reported that he was competing in a national soaring championship competition and his flight was the last of several glider tows for the day. He added that, the launch procedure required that every glider have a tow rope laid out next to the glider, and then a ground crewmember would hook the Schweizer tow ring first to the Schweizer tow latch on the tow airplane, and then attach the Tost tow ring to his Tost equipped glider. He further added that, his glider was loaded with water ballast so that the glider could operate at maximum gross weight for competition purposes.

The glider pilot reported that the takeoff roll and liftoff were normal, but about 100 to 150 ft above ground, "the tow rope spontaneously released from the tow plane." He added that he immediately pulled his rope release handle and pitched forward to land in a grass overrun area past the departure runway, but the glider "had too much airspeed and too little area to land." Subsequently, he pulled up to avoid a "solid line of trees," entered a "gentle" right turn, and impacted a "favorable brushy area."

The glider was destroyed during the impact sequence.

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

A Federal Aviation Administration (FAA) aviation safety inspector reported that the glider tow rope and tow rope rings were found intact just beyond the end of the departure runway and no anomalies were observed. He added that he performed a functional check of the tow hitches on the tow airplane and glider and no anomalies were observed.

The tow airplane pilot reported that this was his seventh tow, and last tow of the day. He added that the tow rope was attached to his airplane by a ground crewmember, and then he was given instructions to "take up slack and launch as usual." He further added that the takeoff and climb out of ground effect were normal, but about 300 ft above ground, the tow airplane was climbing too fast and he radioed, "was that a rope break?" The tow airplane pilot did not receive a response, so he continued his climb; shortly thereafter, he observed the glider was no longer on tow and witnessed the impact. Subsequently, the tow airplane pilot reported that he completed a normal landing, which included a low pass and rope release. When he moved the rope release handle to drop the rope, he felt a "lighter than normal release pressure on the tow handle."

The ground crewmember, who attached the tow rope to the tow airplane and glider, reported in a written statement that he, "made sure the tow rope ring was placed in the proper location at the back of the mechanism." He added that he, "placed the latch over the top beam in the vertical position locking the ring in place." He further added that he "made sure there was no tension on the release cable" and used his weight "in both a straight back and back and up direction assuring the tow ring was securely locked in place."

The glider contest manager reported that the tow airplane involved in the accident was the only airplane with a Schweizer tow hitch. The other tow airplanes being used were equipped with Tost tow hitches. The manager reported that for future contests, only tow airplanes equipped with Tost tow hitches will be used.

The FAA Advisory Circular, Acceptable Methods, Techniques, and Practices - Aircraft Alterations, AC No. 43.13-2B, stated in part: "The Schweizer is a simple over center L-hook type with a rubber tension block to preload the release lever."

The FAA Glider Flying Handbook stated in part:

Schweizer Tow Hook

Prior to use, the tow hook and release arm should be inspected for damage, cracks, deformation, and freedom of movement on the pivot bolt. Visually check

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the tow hook and ensure that the hook properly engages the release arm. Inspect the rubber spacer for general condition and check the condition of the release cable. Inside the cockpit, check to see that the manual release lever is not rubbing against the aircraft seat or any other obstructions, and check the security of the release handle assembly and the cable attachment.

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Accident Rpt# GAA17CA553	09/24/2017 1206 EDT	Regis# N7675K	Bridgeton, NJ	Apt: Woodcrest Farms Airstrip JY17
Acft Mk/Mdl AEROTRIKE SAFARI-NO SERIES		Acft SN 270S	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl ROTAX 503		Acft TT 602	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: CHARLES T. MCDOWELL		Opr dba:		Aircraft Fire: NONE
				AW Cert: LTSP

Events

3. Landing - Hard landing

Narrative

The pilot of the weight-shift-control aircraft reported that, during the base leg turn, a flock of small birds entered the flight path and he banked to avoid them. He added that, a moment later a larger bird struck the support cable on the right wing. No control issues were evident, however, he decided to land in a cleared field to check the structure for damage. Subsequently, during the landing in the field, the nosewheel hit the ground hard, which resulted in substantial damage to the fuselage and wing.

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

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Accident Rpt# GAA17CA561	09/27/2017 1100 CDT	Regis# N200XW	Bessemer, AL	Apt: Bessemer EKY
Acft Mk/Mdl AMERICAN LEGEND AIRCRAFT CO	Acft SN AL-1208	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual	Prob Caus: Pending
Eng Mk/Mdl TITAN CC-340	Acft TT 128	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091	
Opr Name: C & D AVIATION LLC	Opr dba:	Aircraft Fire: NONE		AW Cert: LTSP

Events

1. Landing - Loss of control on ground
-

Narrative

The flight instructor, who was providing instruction in the tailwheel-equipped airplane reported that, during the landing roll, the student pilot failed to maintain directional control and the airplane swerved right and then left. He added that, during the attempted remediation of the second swerve, the tail started to rise with an "associated tire squeal." Subsequently, the propeller struck the ground and the airplane nosed over.

The airplane sustained substantial damage to the fuselage.

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

The flight instructor also reported that, it was his belief that "the student inadvertently got on the brakes."

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Accident Rpt# GAA17CA538	09/11/2017 1550 PDT	Regis# N4465F	Santa Ynez, CA	Apt: Santa Ynez IZA
Acft Mk/Mdl CZECH AIRCRAFT WORKS SPOL SRO	Acft SN 08SC142	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending	
Eng Mk/Mdl ROTAX 912 ULS	Acft TT 3001	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091	
Opr Name: SANTA MONICA FLYERS INC	Opr dba:	Aircraft Fire: NONE		AW Cert: LTSP

Events

2. Landing - Abnormal runway contact

Narrative

The pilot reported that, during landing in gusting wind conditions, "there was a shift in wind speed and direction" and the airplane bounced and landed hard. The main landing gear collapsed, the propeller struck the runway, and exited the runway to the right.

The airplane sustained substantial damage to the fuselage.

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

A review of recorded data from the automated weather observation station located on the airport reported that about 5 minutes after the accident the wind was from 230ø at 11 knots. The airplane landed on runway 26.

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Accident Rpt# GAA17CA577 09/02/2017 0 EDT Regis# N547CT Newport, RI Apt: Newport State UUU
Acft Mk/Mdl FLIGHT DESIGN GMBH CTLS-NO SERIES Acft SN 08-01-18 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: DOMENIC ESPOSITO Opr dba: Aircraft Fire: NONE

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Accident Rpt# ERA18LA003	10/03/2017 830 EDT	Regis# N685SE	Virginia Beach, VA	Apt: Virginia Beach 42VA
Acft Mk/Mdl FREEMAN HERITAGE COLLECTION	Acft SN 6851	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl WRIGHT-HISPANO E		Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091	
Opr Name: TRAINING SERVICES INC	Opr dba:	Aircraft Fire: NONE		AW Cert: SPE

Events

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

Narrative

On October 3, 2017, about 0830 eastern daylight time Freeman Heritage Collection SE5A; N685SE, owned and operated by Training Services Incorporated, was substantially damaged during a forced landing after a partial loss of power during initial climb at Virginia Beach Airport (42VA), Virginia Beach, Virginia. The airline transport pilot sustained minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed, for the local test flight, which was conducted under the provisions of 14 Code of Federal Regulations Part 91.

The accident airplane had been assembled by the Fighter Factory, which was a division of the Warplane Heritage Museum, from parts obtained from the Freeman Heritage Collection, and was operated in the experimental exhibition category.

According to the museum's chief pilot, on the previous day, he had started, taxied, and fast taxied (with the tail up), to ensure the airplane was operating properly for its first flight after being assembled. The intent was to fly it that day, but the wind speed and direction became unfavorable and he decided to fly it early the next morning while there was little or no wind. All the checks that were done on the ground that day were completed satisfactorily, and he was comfortable that the airplane was ready for flight.

On the morning of the accident, the winds were calm. They started the airplane, and the pilot taxied out to runway 29. He chose this runway, so the sun would not be in his eyes on take-off and landing. The airplane started and ran well during taxi and run-up. He advanced the power slowly and the engine ran "perfectly" as the aircraft quickly accelerated and became airborne.

Once in the air, he would normally check all gauges and assess how an airplane was running and would pull power back and land back on the runway if there were any questions whatsoever about its airworthiness. The airplane "was running like a top" and had immediately accelerated easily to 80 mph. Watching the flight's progression for the next few seconds, the pilot committed to continue the flight, as it was running perfectly. When he was about 200-300 feet agl, and more than 3/4 of the way down the runway, he sensed that the engine was losing power, even though he could hear no change in sound of the engine. By the end of the departure end of the runway, it had become apparent that it was losing power, even though it sounded unchanged.

He then started a gradual left turn, looked at the airspeed and noticed it was at 60 mph, and it had stopped increasing. He made a few minor changes in the throttle setting and it made no difference at the higher end. The pilot then made a very small adjustment in the mixture to see if it would do anything different. It appeared to make a change for a second but, the engine continued to lose power. Simultaneously, he continued the left turn, hoping to get turned back around and land on the airport property in the opposite direction. The power continued to degrade, and the pilot had to continue to steepen his decent to maintain the airspeed of 60 mph.

He quickly realized that he was not going to make it back to the airport and turned toward a clear residential area that was between him and the airport, and headed for a recently harvested corn field. He continued to try and get the engine to increase power, without result. There was a swampy, wooded area just beyond the cornfield and nowhere to land. He then committed to land in the corn field, and pulled the throttle back to idle and the engine rpm decreased which indicated to him that it was still running, but just not producing enough power to sustain flight.

Approach to, and initial touchdown in, the cornfield was coordinated and smooth. During the touchdown, he was in the landing flare with the main wheels rolling on the ground, and the airplane was decelerating with the tail a couple of inches in the air. He could hear the cut corn stalks, which were 10-12 inches height, being struck by the wheels and landing gear. Suddenly there was a loud "crack", and then a sudden drop, and a very hard vertical stop. The airplane's forward motion then suddenly stopped, and the airplane then nosed over and came to rest.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector, revealed that it had sustained substantial damage. The main landing gear was broken in several places, and shifted to the left of the longitudinal axis of the airplane. The upper wings were twisted, and impact damaged, the right front

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interplane strut was broken, the leading edge of the center section, vertical stabilizer, and rudder were damaged, and one of the propeller blades had broken off from the hub.

According to FAA airman records and pilot records, the pilot held an airline transport pilot certificate with a rating for airplane multi-engine land, and commercial privileges for airplane single-engine land, and airplane single engine sea. He also held type ratings for the BE-400, CE-500, G-S2, HS-125, L-18, LR-JET, MU-300, N-B25, and G-TBM, as well as letters of authorization for the CHV-F4U, CU-P40, DC-AD1, FW-190, ME-262, MOSQUITO, SPITFIRE, YAK-3, YAK-9, and YAK-11. Additionally, he possessed a flight instructor certificate with ratings for airplane single-engine, and airplane multi-engine, and a mechanic certificate with ratings for airframe and powerplant. His most recent FAA second-class medical certificate was issued on August 19, 2017. He reported that he had accrued 14,475 total hours of flight experience.

According to FAA airworthiness and airplane maintenance records, the airplane's special airworthiness certificate was issued on June 9, 2017. Its most recent condition inspection was completed on June 4, 2017. The engine, had accrued about 6 total hours of operation since major overhaul.

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Accident Rpt# ANC18FA007 11/07/2017 1204 EST Regis# N922BA Clearwater, FL Apt: N/a
Acft Mk/Mdl ICON AIRCRAFT INC A5-NO SERIES Acft SN 00022 Acft Dmg: SUBSTANTIAL Rpt Status: Prelim Prob Caus: Pending
Fatal 1 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: HARRY L. HALLADAY Opr dba: Aircraft Fire: NONE
AW Cert: LTSP

Events

2. Maneuvering-low-alt flying - Unknown or undetermined

Narrative

On November 7, 2017, about 1204 eastern standard time, an amphibious, light sport Icon Aircraft, Inc., A5 airplane, N922BA, impacted open water in the Gulf of Mexico while maneuvering at low level near New Port Richey, Florida. The private pilot sustained fatal injuries, and the airplane was substantially damaged. The airplane was registered to N529PG LLC, and operated by the pilot as a 14 Code of Federal Regulations Part 91 visual flight rules personal flight. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed. The local area flight departed from a lake near the pilot's home in Odessa, Florida, about 1147.

The airplane was equipped with a digital data module that recorded basic GPS, engine, and flight parameters. The airplane was also equipped with a Rockwell Collins engine control unit that recorded engine parameters. The data track from the accident flight showed that the airplane departed from a private lakeside home north of Lake Keystone in Odessa about 1147 and climbed to a GPS altitude of 1,909 ft and tracked north for 4 miles before turning to the west toward the coastline. The airplane then flew for 10 miles and crossed over US Highway 19 about 600 ft GPS altitude, then descended to 36 ft over the water before turning south. The airplane then flew on southerly track past Green Key Beach at 11 ft GPS altitude and 92 knots. The airplane then performed a right 360° turn while climbing to about 100 ft. The airplane continued on a southerly track, flying as close as 75 ft to the Gulf Harbor South Beach houses. The last data point recovered indicated the airplane at an altitude of 200 ft, a speed of 87 knots, and tracking 196°. Video footage taken of the airplane before the accident, shows the airplane in a descending left 45° banked turn and then maneuvering about 10 ft above the water. A witness to the accident stated, during an interview with a National Transportation Safety Board (NTSB) investigator, that he saw the airplane perform a climb to between 300 and 500 ft on a southerly heading and then turn and descend on an easterly heading about a 45° nose-down attitude. He then saw the airplane impact the water and nose over.

The airplane came to rest in 4.5 ft of saltwater oriented on a 192° heading with the fuselage and wings inverted. The front fuselage and cockpit were highly fragmented. The empennage section separated from the airframe and came to rest forward of the wings in an inverted position. Two inflated life vests and numerous fragments were recovered within a 300-ft radius from the wreckage. All the flight controls and major components were located at the main wreckage site. The CAP ballistic parachute system was not deployed, and the handle pin was installed.

On November 8, 2017, the wreckage was recovered from the water and transported to a secure facility for further examination.

The airplane was a certificated light sport aircraft that was outfitted with a Rotax 912iS engine. The pilot accepted delivery of the airplane on October 10, 2017.

The pilot's logbook indicated that he had logged a total of 703.9 flight hours, of which 51.8 hours were in an Icon A5 airplane, and 14.5 hours were in the accident airplane.

The closest weather reporting facility was the St. Pete-Clearwater International Airport (PIE), about 19 miles southeast of the accident site. At 1153, a METAR from PIE was reporting, in part: wind calm, visibility 10 statute miles, clouds and sky condition clear, temperature 83°F, dew point 67°F, altimeter 30.08 inches of mercury.

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Accident Rpt# CEN17LA180	05/11/2017 1945 CDT	Regis# N1041N	Orangeville, IL	Apt: N/a
Acft Mk/Mdl BROKAW BERGON F ZODIAC-HD		Acft SN 6-3013-HDS	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl BOMBARDIER ROTAX 912		Acft TT 197	Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: BAKER MARK A		Opr dba:		Aircraft Fire: NONE

Events

1. Initial climb - Fuel related
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Narrative

On May 11, 2017, about 1945 central daylight time, a Brokaw Bergon Zodiac airplane, N1041N conducted a forced landing near Orangeville, Illinois. The pilot received serious injuries and the airplane was substantially damaged during the accident. The airplane was registered to and operated by a private individual under the provisions of the 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed at the time.

The pilot reported that he had flown for 35 minutes and planned to do another takeoff and landing at his private airstrip. Just after the takeoff and while he was in the climb, the engine started to run rough and then lost power. The pilot selected a hay field for the forced landing; however, the airplane impacted terrain hard and came then to rest up-right.

The responding Federal Aviation Administration (FAA) inspector noted substantial damage to the airplane's fuselage and wings. The right wing fuel tank appeared empty, fuel was visible in the left wing fuel tank, and only residual fuel remained in the header tank, which appeared to have been breached during the impact. A fuel pump circuit breaker was also open, and the fuel selector was in the off position.

The airplane was recovered to the pilot's hangar, and an examination was conducted by an FAA inspector and a technical representative from the engine manufacturer on May 20, 2017. The engine's three bladed propeller (with one broken blade) was absent rotational signatures; the sparkplugs were removed and appeared normal. The engine was then rotated by hand and a thumb compression and continuity check through the drive/valve train was established. Both carburetor float bowls were removed and were empty of fuel; no contaminants or obstructions were noted. The gascolator was removed and only a small amount of fuel was found.

The fuel line to the gascolator was then placed in a container of automobile fuel. The engine was then started and run to power for several minutes; no abnormalities were noted. With the fuel source removed, the engine ran rough, then lost power. A post run examination of the carburetor float bowls, fuel pump, and gascolator found levels of fuel similar to that found prior to the engine run.

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Accident Rpt# CEN17LA366	09/24/2017 1708 CDT	Regis# N91904	Waller, TX	Apt: Skydive Houston Airport 37XA
Acft Mk/Mdl EPPERSON KITFOX		Acft SN 61	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl ROTAX 503 UL DCDI		Acft TT 24	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: LEROY DECKARD		Opr dba:		Aircraft Fire: NONE
				AW Cert: NON

Events

1. Initial climb - Loss of engine power (partial)
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Narrative

On September 24, 2017, about 1708 central daylight time, an experimental, amateur-built Epperson Kitfox, N91904, collided with terrain during the initial climb after takeoff from the Skydive Houston Airport (37XA), Waller, Texas. The pilot was not injured, and the airplane sustained substantial damage. The airplane was registered to a private individual and was being operated by the pilot as a 14 Code of Federal Regulations Part 91 personal flight. Visual meteorological conditions existed near the accident site at the time of the flight, and a flight plan had not been filed. The flight was departing 37XA on a local flight.

The pilot reported that the airplane climbed to 300 to 400 ft above ground level when there was a partial loss of engine power. The pilot attempted to land in a field near a residential area, but during the landing roll, the airplane impacted a fence which resulted in substantial damage to the wings and fuselage.

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Accident Rpt# ANC18LA002	10/11/2017 900 CDT	Regis# N7566D	Ocean Springs, MS	Apt: N/a
Acft Mk/Mdl FLEETWOOD JACK TEAM AIRBIKE	Acft SN AB000154	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim	Prob Caus: Pending
Eng Mk/Mdl ROTAX 503		Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091	
Opr Name:	Opr dba:	Aircraft Fire: NONE		

Events

1. Approach-VFR pattern downwind - Loss of engine power (partial)
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Narrative

On October 11, 2017 about 0900 central daylight time, an experimental amateur-built, Fleetwood Jack, Team Air-Bike airplane, N7566D sustained substantial damage during a forced landing, following a partial loss of engine power while attempting to return to Ocean Springs Airport (5R2), Ocean Springs, Mississippi. The airplane was registered to a private individual and operated by the pilot, as a visual flight rules flight under the provisions of 14 Code of Federal Regulations Part 91 when the accident occurred. The certificated airline transport pilot and sole occupant was not injured. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot reported that he was contemplating purchasing the airplane, and the flight was a part of the pre-buy inspection. He stated that during the test flight he reduced the power to test the slow speed handling characteristics of the airplane. Following slow flight, he increased the throttle, but the engine seemed to "bog down." In an attempt to increase the engine's RPM, he lowered the airplane's nose and the engine seemed to respond and run normal again. He stated that he was uncomfortable with the way the engine was operating and decided to return to 5R2. During the approach to runway 36 at 5R2, the airplane seemed to "bog down" again, he subsequently lowered the airplane's nose, but the engine continued to operate at a reduced power setting. Realizing he would be unable to reach the airport, he selected an off-airport landing site in a residential area. During the forced landing the airplane impacted a fence sustaining substantial damage to the wings.

According to FAA records, the airplane was manufactured in 2005. It was an experimental single place, externally braced high wing airplane, with a two-blade fixed wood propeller, and a Rotax 503, 50 hp, two-stroke engine.

According to an FAA inspector, the accident airplane, as equipped did not meet the requirements contained in 14 CFR Part 103 to be considered an Ultralight Vehicle.

The closest weather reporting facility was Keesler Air Force Base, Biloxi, Mississippi, about 10 miles west of the accident site. At 0856, an Aviation Routine Weather Report (METAR) from Keesler Air Force Base was reporting, in part: wind from 010 degrees at 5 knots; visibility, 10 statute miles; clouds and sky condition, clear; temperature, 79 degrees F; dew point 75 degrees F; altimeter, 30.06 inHG.

A detailed wreckage examination is pending.

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Accident Rpt# CEN16LA230	06/17/2016 2040 CDT	Regis# N124TG	Gardner, KS	Apt: Gardner Municipal Airport K34
Acft Mk/Mdl GLAESER NIEUPORT 11		Acft SN 63	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl VOLKSWAGON		Acft TT 579	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: PILOT		Opr dba:		Aircraft Fire: NONE

Events

2. Approach-VFR pattern base - Aerodynamic stall/spin

Narrative

On June 17, 2016, at 2040 central daylight time, an experimental amateur-built Nieuport 11, N124TG, experienced a hard landing and an impact with terrain during a precautionary landing at Gardner Municipal Airport (K34), Gardner City, Kansas. The pilot performed the precautionary landing after he felt a vibration from the horizontal stabilizer while in the airport traffic pattern. The airplane sustained substantial damage. The pilot was uninjured. The airplane was registered to and operated by the pilot under 14 Code of Federal Regulations Part 91 as a personal flight that was not operating on a flight plan. Visual meteorological conditions prevailed at the time of the accident. The local flight originated from K34 at 2015.

On June 16, 2016, the pilot trailered the airplane to K34 for an upcoming weekend event. On the day of the accident, the airplane was untrailerred and reassembled mid-day. The pilot then preflighted the airplane and taxied it to a parking area at the airport for an evening flight.

The pilot stated that before takeoff he performed an engine run-up and checked the flight controls for a takeoff using runway 17. After takeoff, the pilot flew the airplane in a left-hand airport traffic pattern and completed two circuits over the airport with "no problems." He said that during the upwind leg, parallel to runway 17, he "noticed some vibration," and saw the horizontal stabilizer shaking/vibrating. He varied the engine throttle setting while the airplane was near the departure end of runway 17 to cease the vibration, but the vibration continued. The pilot then heard, but did not see, an inbound aircraft that made a radio transmission referencing runway 26. Due to the inbound aircraft, the pilot thought that it was "unsafe to land" on runway 26, so he flew a left base to runway 17 for landing. As the airplane neared the left side of runway 17, the pilot initiated a "shallow" left turn for a "modified" final over runway 17, and the airplane "quickly began to sink." The said that the airplane experienced an "aerodynamic stall." The pilot added full engine power, which induced a yaw and a roll. The airplane descended and impacted the ground coming to rest short and on the left side of runway 17.

The pilot stated that he did not lose elevator control authority during the flight and his attention to flying the airplane was "distracted" by a fear that parts/empennage may be separating from the airplane, which led to his stalling the airplane. He said that the airplane model was "super draggy" and "super light" and without engine power, the airplane slows down rapidly.

The pilot stated that the airplane was built from plans that were based upon a 100-year old airplane. The plans depicted and the airplane was manufactured without the left and right elevators connected to each other. A single control cable linked the two elevators via a Y-connection. The single control cable was not supported for "a number of feet" through guides/fairleads, which can make the elevators "flutter." The pilot said that following the accident several other airplane owners with the same model of airplane have modified the elevator control system by either installing a bellcrank in the elevator control system or by connecting the left and right elevators together.

The pilot said that neither the plans nor any subsequent modification to those plans in the building of the accident airplane resulted in the installation of a stall warning system in the airplane.

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Accident Rpt# WPR15LA029	10/28/2014 1430 MST	Regis# N682SC	Murphy, ID	Apt: Murphy 1U3
Acft Mk/Mdl HENRY STEVEN J JUST ACFT		Acft SN JA287-02-13	Acft Dmg: SUBSTANTIAL	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl ROTAX 912		Acft TT 430	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: HENRY STEVEN J		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPE

Events

1. Takeoff - Loss of engine power (total)
2. Takeoff - Loss of engine power (total)

Narrative

On October 28, 2014, about 1430 mountain standard time, an experimental-Steven J. Henry, Just Aircraft Superstol, N682SC, experienced a loss of engine power shortly after takeoff from the Murphy airport, Murphy, Idaho. The pilot initiated a forced landing on a dirt road where during the landing roll, the airplane collided with a fence and nosed over. The owner/pilot was operating the airplane under the provisions of 14 Code of Federal Regulations Part 91. The private pilot, and passenger were not injured. The airplane sustained substantial damage to the tail and fuselage. The local personal flight was departing with a planned destination of Nampa, Idaho. Visual meteorological conditions prevailed, and no flight plan had been filed.

In a written statement, the pilot reported that the start-up procedures were normal, and the takeoff was into the wind. About 100 to 200 feet above ground level, the engine lost power. The pilot checked the fuel pumps, lowered the nose and initiated a landing to a dirt road next to the runway. During the landing roll, the airplane collided with a fence and nosed over.

The pilot initially reported to a Federal Aviation Administration (FAA) inspector that he believed the loss of power was due to an engine malfunction or fuel contamination. A few days later, after the airplane was returned to his home base, the pilot reported that after examination of the airplane he believed the loss of engine power was a result of the fuel selector set to an empty fuel tank. He further stated he did not believe the loss of engine power had anything to do with an engine malfunction or fuel contamination.

During a follow-up conversation with the pilot, he reported that he had repaired the airplane and returned it to flying status and found no issues with the engine or the fuel system.

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Accident Rpt# GAA18CA049 11/18/2017 1745 MST Regis# N953LS

Casa Grande, AZ

Apt: Casa Grande Muni CGZ

Acft Mk/Mdl JOHN ROSCOE AUTOGYRO CAVALON-NOAcft SN V00110

Acft Dmg: DESTROYED

Rpt Status: Prelim Prob Caus: Pending

Fatal 0 Ser Inj 0

Flt Conducted Under: FAR 091

Opr Name: WILLIAM J. FLEMING

Opr dba:

Aircraft Fire: NONE

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# ERA18LA019	11/03/2017 1400 EDT	Regis# N21EM	Erwinna, PA	Apt: Vansant 9N1
Acft Mk/Mdl MAURER ELMO A V STAR SA900-NO SERIAcft SN 109			Acft Dmg: UNK	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl LYCOMING O-290 SERIES			Fatal 0 Ser Inj 1	Flt Conducted Under: FAR 091
Opr Name: TORREN ASHER		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPE

Events

1. Landing - Loss of control in flight

Narrative

On November 3, 2017, about 1400 eastern daylight time, an experimental amateur-built V-Star SA9000, N21EM, collided with terrain during landing at Vansant Airport (9N1), Erwinna, Pennsylvania. The private pilot was seriously injured. Day, visual meteorological conditions prevailed at the time, and no flight plan was filed for the local, personal flight. The flight was operated by the pilot under the provisions of 14 Code of Federal Regulations (CFR) Part 91.

A witness stated he saw the accident airplane depart, and about thirty minutes later he saw the airplane approach the airport from the east. He initially saw the airplane in a normal flight attitude over the runway before it disappeared briefly behind rolling terrain. Then he saw the left wing, then the right wing, followed by the tail, he described it as a "cartwheeling" motion. He did not report hearing any strange sounds being emitted by the airplane on the takeoff or landing, nor did he see any smoke or objects falling from the airplane.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed the fuselage came to rest on its nose, and the tail was resting against tree branches. The engine was separated from the airframe, but the airplane remained largely intact.

The single-seat, bi-wing airplane was manufactured in 1980 and was equipped with a Lycoming O-290, 140-horsepower reciprocating engine.

The pilot held a private pilot certificate with a glider rating, and a sport pilot endorsement for airplane single engine land. He reported 20 hours of total flight experience on his most recent application for an FAA third-class medical certificate, which was issued on November 23, 1983.

The weather conditions reported at the Doyelstown Airport (DYL), Doylestown, Pennsylvania, about 9 miles south of the accident site, included wind from 230° at 7 knots, visibility 10 statute miles, clear skies, temperature 21° C, dew point 14° C, and an altimeter setting of 30.04 inches of mercury.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# WPR18LA030	11/12/2017 1025 MST	Regis# N917VA	Sun Lakes, AZ	Apt: N/a
Acft Mk/Mdl VANDERARK RV-10		Acft SN 40076	Acft Dmg: SUBSTANTIAL	Rpt Status: Prelim Prob Caus: Pending
Eng Mk/Mdl CHEVROLET LS1			Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: VANDER ARK JAN		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPE

Events

2. Emergency descent - Loss of engine power (total)

Narrative

On November 12, 2017, about 1025 mountain standard time, an experimental amateur built Vanderark RV-10 airplane, N917VA, impacted terrain and vegetation during a forced landing following a loss of engine power near Sun Lakes, Arizona. The private pilot, sole occupant of the airplane, was not injured; the airplane was substantially damaged. The airplane was registered to and operated by the pilot under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed and no flight plan was filed for the local flight which originated from the Chandler Municipal Airport (CHD), Chandler, Arizona, about 1015.

The pilot reported that while about 15 miles south of CHD and ascending through 4,000 feet msl, he noticed a smell of antifreeze and realized the engine was overheating. The pilot reduced power to idle and executed a 180-degree turn toward CHD. As the airplane descended through about 1,500 feet agl, the pilot attempted to add power and noted no response from the engine. The pilot stated that he attempted to land at a nearby closed airport, however, realized he was unable to make it and subsequently initiated a forced landing to an area of open desert. During the landing roll, the airplane struck several scrub bushes and the nose wheel and left main landing gear collapsed.

The airplane was recovered to a secure location for further examination.

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN16FA307	08/06/2016 820 CDT	Regis# N110PX	Burns Flat, OK	Apt: Clinton-sherman CSM
Acft Mk/Mdl WILSON BUGATTI-DEMONGE 100P		Acft SN 002	Acft Dmg: DESTROYED	Rpt Status: Factual Prob Caus: Pending
Eng Mk/Mdl SUZUKI 1300 CC			Fatal 1 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: PILOT		Opr dba:		Aircraft Fire: GRD
				AW Cert: SPE

Events

1. Takeoff - Loss of control in flight
2. Takeoff - Loss of control in flight

Narrative

HISTORY OF FLIGHT

On August 6, 2016, about 0820 central daylight time, an experimental amateur-built Wilson Bugatti-DeMonge 100P airplane, N110PX, impacted terrain shortly after takeoff from runway 35L at the Clinton-Sherman Airport (CSM), near Burns Flat, Oklahoma. The airline transport pilot was fatally injured, and the airplane was destroyed during impact and a subsequent postcrash fire. The airplane was registered to Le Reve Bleu LLC and was operated by the pilot as a 14 Code of Federal Regulations Part 91 test flight. Day visual meteorological conditions prevailed in the area about the time of the accident, and no flight plan was filed. The local flight was originating from CSM at the time of the accident.

A witness at the airport reported that the airplane lifted off the runway. During the initial climb, the airplane banked to the right and then to the left. The airplane's left bank increased, it descended nose down, and subsequently impacted terrain inverted. Review of a chase helicopter's video was consistent with the witness statements.

PERSONNEL INFORMATION

The 66-year-old pilot held a Federal Aviation Administration (FAA) airline transport pilot certificate with single-engine land, multi engine land, and instrument airplane ratings. He held a second-class FAA medical certificate issued on May 12, 2016. This medical certificate was issued with limitations: "Must wear corrective lenses. and Not valid for any class after 05/31/2017." The pilot reported on that medical certificate application 10,700 hours of total flight time and 25 hours of flight time in the previous six months.

AIRCRAFT INFORMATION

N110PX was an experimental amateur-built, twin-engine, single-seat, tailwheel monoplane built as a replica of the Bugatti-DeMonge 100P, a 1930's era air racer that was never flown. There was only one original airplane produced, and the accident airplane was the first and only replica produced to the date of this report. According to airworthiness documents, the airplane was constructed to duplicate the original airplane's structure, systems, and dimensions. The accident airplane was powered by two Suzuki Hyabusa reciprocating, clutched motorcycle engines mounted in tandem aft of the cockpit. The engines drove two coaxial two-blade contra-rotating Hercules fixed-pitch wooden propellers. The forward engine was installed with the output drive shaft forward and was directly connected to the propeller reduction gearbox through universal joints and drive shafts on the left side of the fuselage. The rear engine was installed with the output drive shaft aft and was indirectly connected to the propeller reduction gearbox through a chain drive and sprockets that drove the drive shafts and universal joints on the right side of the fuselage. Both engine gearboxes were set in 6th gear and could not be changed. The propeller reduction gearbox was contained in a single housing with two separate drive trains to drive the forward and aft contra rotating propellers. The forward engine engaged the left gearbox drivetrain and drove the forward propeller. The aft engine engaged the right drivetrain and drove the aft propeller.

Engine throttle control was accomplished through two levers installed side-by-side on the left side of the cockpit with the left throttle lever controlling the forward engine and the right throttle lever controlling the aft engine. Engagement of the hydraulic clutches on the engines was accomplished independently by two levers mounted side-by-side on the right side of the cockpit. Each engine could be run without propeller movement until the respective clutch was engaged.

The airplane's maximum gross weight was listed as 2,939 pounds and its empty weight was 2,470 pounds. The airplane received its FAA Special Airworthiness Certificate in the experimental category on August 4, 2015.

METEOROLOGICAL INFORMATION

At 0753, the recorded weather at CSM was wind 040ø at 9 knots, visibility 10 statute miles, sky condition clear, temperature 23ø C, dew point 21ø C, and altimeter 30.06 inches of mercury.

AIRPORT INFORMATION

CSM was a public, towered airport, which was owned by the Oklahoma Space Industry Development Authority/State of Oklahoma. It was located about 2 miles west of Burns Flat, Oklahoma. The airport had an estimated elevation of 1,922.1 ft above mean sea level. Two runways, 17R/35L and 17L/35R serviced the airport. Runway 17R/35L was a 13,503 ft by 75 ft runway with a concrete surface. Runway 17L/35R was a 5,193 ft by 75 ft runway with a concrete surface. Airport operations personnel examined the runway after the accident and no liberated airplane parts were found.

WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was found about 1,900 ft and 335ø from the departure threshold of runway 35L. The airplane came to rest inverted on an approximate 330ø heading. A depression was observed in the ground about 110ø and 23 ft from the wreckage. Sections of clear plastic were found in the depression and the surface of sections of the depression contained a blue color transfer consistent with the color of the airplane. The airplane, forward of its empennage, was discolored, deformed, and charred, with sections consumed by fire. The rudder's skin was consumed by fire. The lower section of the right main landing gear separated from its strut and the lower section was found resting on vegetation northwest of the main wreckage. Splintered wooden propeller blade fragments were found resting on the ground in the area around the wreckage.

An on-scene examination of the wreckage was conducted. The rudder control cables were traced from the rudder to the rudder pedals. The elevators' push/pull tubes were attached to the control arms for each elevator. Forward of the empennage, the elevator tubes were found to be consumed by fire. Sections of the aileron tubes were found to be consumed by fire outboard of the fuselage. However, outboard sections of the aileron's control tubes were found connected to each aileron. Control continuity for the elevators and ailerons could not be established due to the fire damage. The propulsion drivetrain was traced from the engines to the gearbox and propellers, and no preimpact anomalies were detected. There were no observed damage or witness marks to indicate that the chain and sprockets for the aft engine became disengaged under power. The engines sustained thermal damage. The engines could not be rotated by hand and their clutches were not examined on scene. However, no external indications of engine anomalies were observed. The propeller gearbox was intact but had sustained thermal damage and sooting. The propeller hub was attached and charred. A portion of the left driveshaft remained attached to the universal joint and the right drive shaft was separated from the universal joint. There were no external indications of gearbox anomalies observed.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by the Office of the Chief Medical Examiner in Oklahoma City, Oklahoma, and toxicological samples were taken. The autopsy listed multiple blunt force injuries as the cause of death and accident as the manner of death.

The FAA Bioaeronautical Sciences Research Laboratory's Civil Aerospace Medical Institute (CAMI) prepared a Final Forensic Toxicology Accident Report on the samples taken during the autopsy. The report indicated that the samples sustained putrefaction and subsequently, in part, stated:

178 (mg/dL, mg/hg) Ethanol detected in Muscle
38 (mg/dL, mg/hg) Ethanol detected in Brain
N-Butanol detected in Muscle
Propanol (N-) detected in Muscle
Propanol (N-) detected in Brain

The CAMI description of Ethanol indicated that it is "primarily a social drug with a powerful central nervous system depressant. After absorption, ethanol is uniformly distributed throughout all tissues and body fluids. The distribution pattern parallels the water content and blood supply of each organ. Postmortem production of ethanol also takes place due to putrefaction processes, but vitreous humor and urine do not suffer from such production to any significant extent in relation to blood. Vitreous humor would normally have about 12% more ethanol than blood if the system is in the post absorptive state, and urine would normally have about 25% more ethanol than blood. The average rate of elimination of ethanol from blood is 18 mg/dL (15-20 mg/dL) per hour."

The CAMI description of N-Butanol indicated that it is "an alcohol. It is also produced postmortem, along with ethanol and other alcohols."

The CAMI description of N-Propanol indicated that it is "an alcohol. It is also produced postmortem, along with ethanol and other alcohols."

FIRE

Review of a chase helicopter's video showed that there was no inflight fire and that the accident airplane's fire started after the ground impact.

TESTS AND RESEARCH

The airplane was fitted with GoPro cameras for the flight. Six of these cameras were found in the area of the wreckage and were sent to the National Transportation Safety Board (NTSB) Recorder Laboratory. The airplane wreckage was released and subsequent to the release, a mechanical engineer in the recorder laboratory examined the cameras, convened a Video Group as its Chairman, and subsequently produced an Onboard Image Recorder Factual Report.

The Onboard Image Recorder Factual Report stated that the cameras exhibited witness marks consistent with various levels of impact damage. The cameras recorded video data on micro secure data (microSD) cards. Five of the six microSD cards contained retrievable video data for the entire flight and one microSD card contained retrievable data for a portion of the flight before impact.

The report, in part, described the timing and correlation of the cameras' data and the group's observations of the accident flight recorded video and a previous flight's recorded video. The description of the accident flight, in part, indicated that the pilot was in a conscious state during the recording. No pilot or ground crew conversations pertinent to the investigation were captured. All preflight activities appeared to be consistent with known procedures. The pilot was seated and belted during the recording. He moved the left/forward ignition master switch to its "on" position and depressed the starter button. Then a sound consistent with a running engine was heard and the front propeller rotated counter-clockwise. The pilot depressed the right/rear starter button. No additional engine sound was heard and the pilot moved the right/rear ignition master switch to its "on" position. The pilot then depressed the starter button again, the rear propeller spun clockwise, and the sound consistent with a running engine was heard. The pilot appeared to manipulate the area consistent with the location of the engine clutch engagement lever and the front propeller began to spin counter-clockwise. The pilot movements were consistent with flight control check. The engine and gearbox gauge indications, which included engine oil temperature, engine oil pressure, fuel pressure, water temperature, volts, gearbox oil temperature, and gearbox oil pressure for both engines were within their respective green ranges at the start of the taxi to runway 35L and through the remainder of the recording. The airplane crossed the runway edge marking for runway 35L, the pilot added power, and the airplane tracked the right side of the runway centerline. The pilot added power and the airspeed indication became alive during the takeoff roll. The airspeed was about 60 knots during the roll abeam taxiway E. The airspeed indicated 80 knots after the airplane passed abeam taxiway D. The pilot applied backpressure to the control stick when the indicated airspeed was above 80 knots. The airplane crossed abeam taxiway C and it became airborne. The left/forward throttle lever was about 3/4 knob-width behind the right/rear throttle lever. The airplane laterally transitioned from the right side of the runway centerline to the left side of the centerline. The pilot moved the gear selector switch to the "up" position, a red light nearby illuminated, and the light extinguished about five seconds later. The runway centerline was visible below and to the right of the airplane. A change in pitch was heard in the ambient engine sounds. The rpm indication for the left/forward engine began to climb and the right rear engine appeared to remain stabilized. The pilot looked downward in the cockpit area near the hydraulic valve lever. The end of runway 35L became visible and the airplane was left of runway centerline. The pilot's right arm appeared to reach in the direction of the hydraulic valve lever. The left forward throttle lever appeared to be a knob and a half width distance from the right/rear throttle lever. The left/forward rpm indications trended upward, the pilot returned his left hand to the throttles, and his right hand to the control stick. The airplane entered an uncommanded slight left roll. The left/forward engine rpm indication reached about 10,000 rpm and the pilot pulled back the left/forward throttle lever near the closed position. Engine sounds decreased, the left/forward rpm indication decreased, and the airspeed was around the start of the green arc about 70 knots. The ambient engine sound surged. The pilot appeared to have pushed the right/rear throttle forward. The left/forward engine rpm indicated an increase in rpm near its redline. The left/forward throttle lever was positioned

near its closed position. The airplane exhibited an uncommanded right roll and some flutter was observed on the left aileron. The airspeed was below the green arc about 65 knots. The right roll was arrested and the airplane appeared level. About a second later, the airplane entered an uncommanded left roll. The airspeed indication was about 65 knots. The control stick was in a neutral position. The left/forward rpm indication was near redline and the right/rear engine indication was about 4,500 rpm. As the airplane rolled through 90° of left bank, the pilot placed both hands on the control stick and commanded a right roll with a positive pitch attitude. The airplane continued to roll left, the nose dropped, and a green field came into view out of the front of the windscreen. The airplane rolled inverted and the recording continued until the subsequent ground impact. The altimeter during the recording did not exhibit an increase in altitude. However, an estimate from a chase helicopter video showed that airplane reached a maximum altitude between 80 and 100 ft above ground level. Additionally, a plot of observed parameters during the accident flight video was produced. The Onboard Image Recorder Factual Report is appended to the docket associated with this investigation.

An NTSB aerospace engineer, who was a member of the video group, reviewed the video recordings, assisted in observed video documentation, and produced an Airplane Performance Study. The performance study, in part, reviewed instrument readings as a function of camera elapsed time. The readings included indicated airspeed (VIAS), indicated angle-of-attack (α), left/forward and right/rear engine throttle lever angles (TLA), and the corresponding engine speeds (rpm).

A plot of the tabulated TLA's, rpm's, and VIAS's as a function of camera elapsed time was produced and the data showed that the engine speed for the forward engine began increasing from 6,000 rpm about 7 seconds elapsed time without any apparent TLA input from the pilot. The pilot responded by reducing TLA for the forward engine at 31 seconds elapsed time, about two seconds before the forward engine reached its maximum operating speed (red line) of 9,500 rpm.

The pilot continued to reduce TLA to a minimum of about 40° for the forward engine until, about 38 seconds elapsed time, he increased the forward TLA by 10°. The airplane's airspeed was observed decaying. The forward engine reached red line for a second time about 42 seconds elapsed time.

The input TLA and engine rpm for the right/rear engine appeared more consistent than for the left/forward engine. The rpm for the rear engine remained at approximately 5,800 rpm for most of the recording until, about 31 seconds elapsed time, the pilot began increasing the rear engine TLA by 7° through the next ten seconds. During this time, the rear engine rpm remained constant despite the 7° increase in TLA. The right engine rpm reduced to about 4,500 rpm after the pilot pulled the TLA back to 45° about 41 seconds elapsed time.

The airspeed plot showed that the airplane decelerated below the published stall speed of 70 knots equivalent airspeed (based on a gross weight of 2,850 lb and a normal load factor of 1.04) about 41 seconds elapsed time and remained below the stall speed for the remainder of the recording. The video evidence reflected a sequence of events consistent with an aerodynamic stall.

The performance study used the tabulated airspeed and an estimated operational gross weight of 2,650 lb and determined the airplane lift coefficient that was extracted from the data as a function of indicated angle-of-attack. Where angle of attack data was available, the lift from the observed accident data compared consistently with design estimates derived by the Le Reve Bleu team. The Airplane Performance Study is appended to the docket associated with this investigation.

ADDITIONAL INFORMATION

Examination of the terrain from the accident site to one quarter mile north of the accident site revealed that a suitable field for an emergency landing was present there.