



National Transportation Safety Board Aviation Accident Preliminary Report

Location:	Winter Haven, FL	Accident Number:	ERA19FA106
Date & Time:	02/23/2019, 1243 EST	Registration:	N65NE
Aircraft:	STOL Aircraft Corp UC-1	Injuries:	1 Fatal, 1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Instructional		

On February 23, 2019, about 1243 eastern standard time, a STOL Aircraft Corp UC-1 amphibious airplane, N65NE, impacted a residence shortly after takeoff from Winter Haven Regional Airport (GIF), Winter Haven, Florida. The flight instructor was fatally injured, the commercial pilot receiving instruction sustained minor injuries, and there was one serious ground injury. The airplane was owned by ESP Aviation LLC and privately operated under the provisions of 14 *Code of Federal Regulations* Part 91. Visual meteorological conditions prevailed, and no flight plan was filed for the local instructional flight which departed at 1239.

According to the commercial pilot receiving instruction (the pilot), he and a colleague were receiving initial airplane multiengine sea training from the flight instructor in the accident airplane. The accident flight was the third flight of the day.

According to the pilot, the instructor advised him before takeoff that he would introduce a simulated engine failure at some point during takeoff or climbout. Shortly after takeoff from runway 23, about 200-300 ft above ground level (AGL), the instructor reduced the throttle on the left engine and the left engine stopped producing power, and the propeller feathered. They identified the failed engine, the instructor took over the flight controls, and selected a forced landing site.

During the descent, the flight crew's engine restart procedures were unsuccessful and they determined that the airplane would not reach the selected forced landing site. The instructor then chose a lake to the airplane's left as an alternate site. During the left descending turn, the airplane slowed, the left wing dropped, and the airplane impacted a house, seriously injuring one of its occupants.

A witness in a fuel truck at GIF stated she watched the airplane fly overhead. She saw both propellers rotating and watched as the left propeller stopped rotating. The witness said she then watched as the airplane "sank" in a descending left turn until it disappeared from view.

The pilot held a commercial pilot certificate with ratings for airplane single engine land, airplane single-engine sea, and instrument airplane. He held a flight instructor certificate with a

rating for airplane single-engine. His most recent FAA second-class medical certificate was issued October 24, 2017. He reported 820 total hours of flight experience on that date.

The flight instructor held an airline transport pilot certificate with ratings for airplane single- and multiengine land, and single- and multiengine sea. He held a flight instructor certificate with ratings for airplane single- and multiengine. His most recent FAA first-class medical certificate was issued January 25, 2019. He reported 15,000 total hours of flight experience on that date.

The five-seat, twin-engine, high-wing, amphibious airplane was manufactured in 1986. It was powered by two Lycoming IO-360, 180-horsepower engines, equipped with Hartzell two-blade, constant-speed propellers. A review of the airplane maintenance records revealed that a 100-hr inspection was completed on February 23, 2019.

Examination of the accident site revealed that the airplane came to rest inside the house and rested in a near vertical, nose-down attitude. All major components were accounted for at the scene. The cockpit area was destroyed and crushed inward. The top of the fuselage between the engines was crushed inward. The fuselage beyond the fifth seat was intact and undamaged. The throttle quadrant, which ran along the top of the cockpit, was separated during the impact sequence. The wings remained attached and were removed for recovery. After recovery of the airplane, control continuity was traced from the cockpit, through several cable breaks to all flight control surfaces.

The right-wing leading edge inboard of the engine was crushed inward. The front and inboard side of the cowling was crushed. The right-engine propeller blades displayed chordwise scratching and tip curling. The wing outboard of the engine was undamaged. The left-wing leading edge inbound of the engine was crushed. The left propeller blades were feathered and undamaged. There was damage to the outboard portion of the wing, which included wrinkled skin, and upward folding of the wing and skin. The wingtip was crushed inward.

The left and right engine crankshafts were rotated by hand at the propeller hub, and continuity was confirmed through the powertrain to the valve train and accessory section. Compression was confirmed on all cylinders of both engines using the thumb method. All of the ignition harness leads were intact and undamaged. The right engine's magnetos were manually rotated and produced spark at all terminal leads.

A test run of the left engine mounted on the left wing was attempted. An external battery and engine controls were connected, and an external fuel tank was plumbed directly to the fuel pump inlet. The engine started immediately, accelerated smoothly, and ran continuously at all selected power settings without interruption.

No evidence of preimpact mechanical malfunction was noted during the examination of the recovered airframe and engines.

At 1153, the weather conditions reported at GIF included, wind from 170° at 12 knots, gusts to 17 knots, visibility 10 statute miles, few clouds at 3,400 ft, temperature 29° C, dew point 20° C, and an altimeter setting of 30.15 inches of mercury.

Aircraft and Owner/Operator Information

Aircraft Make:	STOL Aircraft Corp	Registration:	N65NE
Model/Series:	UC-1	Aircraft Category:	Airplane
Amateur Built:	No		
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KGIF, 146 ft msl	Observation Time:	1153 EST
Distance from Accident Site:	0 Nautical Miles	Temperature/Dew Point:	29° C / 20° C
Lowest Cloud Condition:	Few / 3400 ft agl	Wind Speed/Gusts, Direction:	12 knots / 17 knots, 170°
Lowest Ceiling:		Visibility:	10 Miles
Altimeter Setting:	30.15 inches Hg	Type of Flight Plan Filed:	None
Departure Point:	Winter Haven, FL (GIF)	Destination:	Winter Haven, FL (GIF)

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	1 Serious	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Serious, 1 Minor	Latitude, Longitude:	28.056111, -81.753333

Administrative Information

Investigator In Charge (IIC):	Millicent M Hill
Additional Participating Persons:	Joe Gramzinski; FAA/FSDO; Orlando, FL Mike Childers; Lycoming; Williamsport, PA
Note:	The NTSB traveled to the scene of this accident.