



Aviation Investigation Final Report

Location:	Morganton, North Carolina	Accident Number:	ERA17LA102
Date & Time:	February 6, 2017, 16:15 Local	Registration:	N426KS
Aircraft:	SHELL JOHN SUPER SIX	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot, who was the owner of the experimental airplane that was equipped with a vintage radial engine, decided to take the airplane around the airport traffic pattern. He recalled that he conducted a preflight inspection and remembered a portion of the takeoff, but did not recall the events of the accident. A witness reported that the engine was “sputtering” before the airplane impacted trees about 3,500 ft from the departure end of the runway; a postimpact fire ensued.

The propeller exhibited little rotational damage, consistent with low or no engine power at the time of impact. Given these signatures and the witness description of the engine “sputtering,” it is likely that the engine lost either partial or total power. A small amount of fuel was discovered in the fuel sump; however, the total fuel onboard the airplane at the time of the accident could not be determined. The engine sustained impact and postimpact fire damage. Subsequent examination of the additional systems, specifically the fuel system, was inconclusive due to the severe impact and postimpact fire damage; therefore, the reason for the loss of engine power could not be determined based on the available information.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A loss of engine power and impact with trees and terrain for reasons that could not be determined based on the available information.

Findings

Aircraft	Recip engine power section - Unknown/Not determined
Aircraft	Altitude - Attain/maintain not possible

Factual Information

History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Landing	Collision with terr/obj (non-CFIT)

On February 6, 2017, at 1615 eastern standard time, an experimental, amateur-built Super Six, N426KS, was substantially damaged when it was involved in an accident near Morganton, North Carolina. The private pilot was seriously injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot, who was the owner of the airplane, stated that he would occasionally run the airplane and would not fly it, but on the day of the accident, he decided to take the airplane around the airport traffic pattern one time. He conducted a preflight inspection, which included measuring the fuel contained in the tanks. The pilot remembered conducting a normal engine run-up and a portion of the takeoff, but did not remember anything further until he woke up in the ambulance following the accident. He did not recall if he had retracted the landing gear or if the engine was operating.

Witnesses reported that they saw the airplane descend through the trees, followed immediately by a postimpact fire. One witness heard the engine “sputtering” before impact.

The pilot, who was the owner of the airplane, had about 5,500 hours total flight experience, of which 7 hours were in the accident airplane. He accrued about 50 total hours flight experience in the previous year, of which none were in the accident airplane.

The two-seat, single-engine, tailwheel-equipped airplane was powered by a Pratt and Whitney, R1830-92, 1,200 horsepower engine. The airplane's airworthiness certificate was issued in March 2011; the airplane had accumulated approximately 85 hours of total flight time. The most recent condition inspection was completed on April 6, 2016, at 77.6 hours total aircraft time. The pilot’s son, who had about 75 hours of flight experience in the accident airplane, stated that the engine consumed about 50 gallons per hour (gph) in cruise flight and 120 gph at a takeoff power setting.

Post-accident examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed that the airplane impacted trees and terrain about 3,500 ft west of the departure end of the runway in a wooded area, about 250 ft from residential buildings. The cockpit, left inboard wing, and right wing were consumed by fire. The outboard portion of the left wing was suspended about 25 ft above the ground in a tree aft of the main wreckage. The empennage exhibited impact and postimpact fire damage. The engine remained attached to the airframe and displayed impact and thermal damage. The reduction gear box and propeller separated from the airframe and was located about 50 ft from the wreckage in a clearing. The propeller exhibited little rotational damage, and one of the three blades was bent slightly aft in a near-feathered position. The propeller dome was crushed on one side. The metal

fuel tank was breached during impact, but the fuel sump contained a small amount of liquid consistent with the odor and color of aviation fuel.

The airplane checklist stated that the fuel selector should be selected to the fullest tank for takeoff and that the auxiliary fuel tank should not be used during takeoff or landing. Due to impact and thermal damage, neither the position of the fuel selector valve nor whether the fuel boost pump was on at the time of the accident could be determined.

Pilot Information

Certificate:	Private	Age:	84, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	June 14, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 5500 hours (Total, all aircraft), 7 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	SHELL JOHN	Registration:	N426KS
Model/Series:	SUPER SIX NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2010	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	JS-001
Landing Gear Type:	Retractable - Tailwheel	Seats:	2
Date/Type of Last Inspection:	April 6, 2016 Condition	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	77.6 Hrs as of last inspection	Engine Manufacturer:	Pratt & Whitney
ELT:		Engine Model/Series:	R1830-92
Registered Owner:		Rated Power:	1200 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KHKY, 1189 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	20:53 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	18°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Morganton, NC (NC52)	Type of Flight Plan Filed:	None
Destination:	Morganton, NC	Type of Clearance:	None
Departure Time:	16:10 Local	Type of Airspace:	Class G

Airport Information

Airport:	SILVER CREEK NC52	Runway Surface Type:	Grass/turf
Airport Elevation:	1020 ft msl	Runway Surface Condition:	Vegetation
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	3600 ft / 200 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	35.725833, -81.746665(est)

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence	
Additional Participating Persons:	Paul Meyer; FAA FSDO; Charlotte , NC	
Original Publish Date:	June 10, 2021	Investigation Class: 3
Note:	The NTSB did not travel to the scene of this accident.	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=94690	

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