



Aviation Investigation Final Report

Location:	Palatka, Florida	Accident Number:	ERA16LA110
Date & Time:	February 23, 2016, 11:15 Local	Registration:	N256CD
Aircraft:	CIRRUS DESIGN CORP SR22	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot stated that, while in cruise flight at 7,000 ft mean sea level (msl), he began a descent to a lower altitude to prepare for arrival at the destination airport. Just after he began the descent, he retarded the throttle slightly, and the engine power dropped dramatically. The propeller continued to rotate, and the pilot attempted to divert to the nearest airport. During the glide, the pilot adjusted the mixture, switched magnetos, and moved the throttle to full and then back to idle again with no effect. When he determined that the airplane would be unable to reach the diversion airport, he deployed the airframe parachute system about 1,000 ft msl. The airplane came to rest upright in the backyard of a residence.

Examination of the airplane revealed that both wing fuel tanks were about half full of fuel. After recovery, examination of the engine revealed no evidence of any preimpact mechanical malfunctions that would have precluded operation, and a successful engine test run was conducted. Additionally, review of engine monitor data did not reveal any anomalies before or after the partial loss of engine power.

Probable Cause and Findings

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

A partial loss of engine power for reasons that could not be determined because engine examination, an engine test run, and review of engine monitor data did not reveal any evidence of preimpact anomalies that would have precluded normal operation.

Findings

Not determined

(general) - Unknown/Not determined

Factual Information

History of Flight

Enroute-descent	Loss of engine power (partial) (Defining event)
Emergency descent	Miscellaneous/other
Emergency descent	Attempted remediation/recovery
Emergency descent	Off-field or emergency landing

On February 23, 2016, at 1115 eastern standard time, a Cirrus Design Corp. SR22, N256CD, was substantially damaged during impact with terrain, after deployment of the Cirrus Airplane Parachute System, following a partial loss of engine power near the Palatka Municipal Airport (28J), Palatka, Florida. The private pilot received minor injuries. Visual meteorological conditions prevailed and an instrument flight rules flight plan was filed for the flight that departed from the Sanford-Lee County Airport (TTA), Sanford, North Carolina, about 0820. The flight was destined for the Leesburg International Airport (LEE), Leesburg, Florida. The personal flight was operated under the provisions of Title 14 Code of Federal Regulations Part 91.

The pilot stated that while in cruise flight, at an altitude of 7,000 feet mean sea level (msl), he began a descent to a lower altitude in preparation for arrival at the destination airport. Just after the descent began, he retarded the throttle "slightly" and the "power dropped dramatically, perhaps to idle." The propeller continued to rotate but he was unsure of the exact engine rpm as he did not look at the tachometer. He requested and received vectors from air traffic control to the nearest airport and turned toward 28J. He then switched fuel tanks, adjusted the mixture, switched magnetos, and moved the throttle to full and back to idle again, all with no effect. When he determined that the airplane would not be able to reach the airport, he deployed the airframe parachute system about 1,000 feet msl.

Examination of the airplane at the accident scene by a Federal Aviation Administration inspector revealed that the it came to rest in a residential area, 2.8 nautical miles southeast of 28J, between a backyard shed and a recreational vehicle trailer. The parachute was entangled in power lines. The propeller and the nosewheel sustained damage, and the left aileron had separated from the wing. The inspector also noted that both wing fuel tanks were about half-full of fuel.

The airplane was recovered to a storage facility and examination of the engine did not reveal any preimpact mechanical malfunctions. With the engine still installed on the airframe, an engine test-run was performed. The engine started after two revolutions and ran continuously. After a brief warmup, the throttle was advanced to 1,700 rpm and a magneto check was performed, during which the rpm drop was about 100 rpm for each magneto. The throttle was advanced to full power momentarily, and the engine reached 2,500 rpm. The throttle was then retarded to idle and the engine speed dropped to about 800 rpm. The mixture control was then pulled to the idle/cut position and the engine ceased running.

Data were download and plotted from an onboard engine monitor. Review of the data did not reveal any anomalies prior to or after the reduction in engine power and subsequent loss of engine power.

Pilot Information

Certificate:	Private	Age:	61, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	June 24, 2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 1, 2014
Flight Time:	1900 hours (Total, all aircraft), 402 hours (Total, this make and model), 1850 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CIRRUS DESIGN CORP	Registration:	N256CD
Model/Series:	SR22 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2002	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	0234
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	January 14, 2016 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:	4 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1387 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	IO-550-N7B
Registered Owner:	On file	Rated Power:	310 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:	K28J,34 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	16:15 Local	Direction from Accident Site:	322°
Lowest Cloud Condition:	Scattered / 2400 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 3100 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.94 inches Hg	Temperature/Dew Point:	24°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SANFORD, NC (TTA)	Type of Flight Plan Filed:	IFR
Destination:	LEESBURG, FL (LEE)	Type of Clearance:	IFR
Departure Time:	08:20 Local	Type of Airspace:	Class E

Airport Information

Airport:	PALATKA MUNI - LT KAY LARKIN F 28J	Runway Surface Type:	
Airport Elevation:	47 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	29.620555,-81.65583(est)

Administrative Information

Investigator In Charge (IIC):	Brazy, Douglass
Additional Participating Persons:	Mark R Hands; FAA/FSDO ; Orlando, FL Brannon Mayer; Cirrus Aircraft; Duluth, MN Mike Council; Continental Motors; Mobile, AL
Original Publish Date:	November 15, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=92756

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).