



Aviation Investigation Final Report

Location:	Swainsboro, Georgia	Accident Number:	ERA18FA231
Date & Time:	August 25, 2018, 14:00 Local	Registration:	N4785D
Aircraft:	Cessna 182	Aircraft Damage:	Destroyed
Defining Event:	Loss of engine power (total)	Injuries:	4 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Skydiving		

Analysis

After completing several skydiving flights without incident, the airplane was refueled. The pilot completed the next flight uneventfully; however, during takeoff on the subsequent flight, the airplane reached an altitude about 150 ft above ground level when it lost total engine power. A witness reported that the wings "rocked" left and right before the airplane pitched down and impacted the ground. Examination of the airplane revealed that the right fuel tank cap was missing and tape was covering the fuel filler port on the right wing. The tape was installed during the most recent refueling. The fuel selector valve sustained significant thermal damage and was observed in the "both" position when disassembled. Examination of the fuel tank vent line did not reveal any obstructions; however, the line was impact damaged. Examination of the engine and its components revealed no anomalies that would have precluded normal operation. While the installation of tape over the right wing fuel filler port likely resulted in a non-venting seal, it could not be determined if it resulted in the loss of engine power, as other means of fuel system venting likely remained. After the total loss of engine power, the airplane exceeded its critical angle of attack and experienced an aerodynamic stall at too low of an altitude for the pilot to recover.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The total loss of engine power for reasons that could not be determined based on available information.

Findings

Not determined

(general) - Unknown/Not determined

Factual Information

History of Flight

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

On August 25, 2018, about 1400 eastern daylight time, a Cessna 182A, N4785D, was destroyed when it was involved in an accident at East Georgia Regional Airport (SBO), Swainsboro, Georgia. The commercial pilot and three passengers were fatally injured and one passenger sustained serious injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 skydiving flight.

The parachute rigger reported that he flew on the first and second flights of the day and stated that they were "coaching flights" by the company owner with the new pilot. The rigger stated that the owner was pleased with the pilot's flying skills and decided to let him continue flying the rest of the day's flights.

During the next three flights, the rigger stayed on the ground packing parachutes and attending to the jumpers. He recalled that, after the fourth flight, the pilot was refueling the airplane and realized that the right wing fuel cap was missing. The pilot asked the rigger to contact the maintenance facility on the airport to see if they had an extra fuel cap; the maintenance facility sent a mechanic to look at the airplane. The rigger observed the mechanic and the pilot working on the airplane, and the pilot later told the rigger that they decided to use "fuel cell tape" over the fuel filler port. The flight then departed with a group of skydivers, and the rigger returned to the hangar to repack parachutes. When the jump airplane returned, the final group of skydivers boarded the airplane for departure. While in the hangar, the rigger observed the airplane taxi for takeoff but did not see it depart. Shortly thereafter, he saw a police car driving toward the end of the runway. The rigger exited the hangar and saw a "huge" fire at the end of the runway.

A witness near the airport watched as the airplane climbed after takeoff and stated that the airplane was about 150 ft over the runway when the engine stopped. The witness watched as the wings of the airplane "rocked" left and right before the airplane pitched down, collided with the ground, and subsequently burst into flames and was consumed by fire.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	23, Male
Airplane Rating(s):	Single-engine land; Multi-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):	Airplane single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	August 23, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 23, 2018
Flight Time:	(Estimated) 300 hours (Total, all aircraft)		

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	None
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Rear
Other Aircraft Rating(s):		Restraint Used:	None
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Rear
Other Aircraft Rating(s):		Restraint Used:	None
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Rear
Other Aircraft Rating(s):		Restraint Used:	None
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4785D
Model/Series:	182 A	Aircraft Category:	Airplane
Year of Manufacture:	1958	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	34885
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	August 10, 2018 100 hour	Certified Max Gross Wt.:	2348 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	6024.8 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	C91 installed, not activated	Engine Model/Series:	O-470-50
Registered Owner:	On file	Rated Power:	230 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:	SBO,327 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	14:30 Local	Direction from Accident Site:	14°
Lowest Cloud Condition:	Scattered / 3900 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.18 inches Hg	Temperature/Dew Point:	31°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Swainsboro, GA (SBO)	Type of Flight Plan Filed:	VFR
Destination:	Swainsboro, GA (SBO)	Type of Clearance:	VFR
Departure Time:	13:55 Local	Type of Airspace:	Class G

Airport Information

Airport:	East Georgia Regional SBO	Runway Surface Type:	Asphalt
Airport Elevation:	327 ft msl	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	6021 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	3 Fatal, 1 Serious	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	4 Fatal, 1 Serious	Latitude, Longitude:	32.609165,-82.370002(est)

The airplane came to rest 2,000 ft past the departure end of runway 14. The 35-ft-long wreckage path extended from the first ground scar on a magnetic heading 014°; and ended at the main wreckage. The left wing was partially separated and came to rest forward of the fuselage. The left fuel tank and left flap were consumed by the postimpact fire. The left fuel tank cap was thermally damaged. The right wing came to rest upright on the right side of

the fuselage. The right wing remained loosely attached by the right lift strut. Further examination of the right wing revealed that the fuel cap was missing and tape was covering the fuel filler port. The tape had been exposed to heat and was peeling. The cabin and the instrument panel were consumed by the postimpact fire. The fuel selector valve sustained significant thermal damage and was observed in the "both" position when disassembled. Examination of the fuel tank vent line, which was installed on the left wing did not reveal any obstructions; however, the line was impact damaged. All flight control surfaces were accounted for at the accident site, and flight control continuity was established from the cockpit to each control surface. Examination of the engine and its components revealed no anomalies that would have precluded normal operation.

Medical and Pathological Information

The Division of Forensic Sciences, Georgia Bureau of Investigation, State of Georgia, performed an autopsy on the pilot. His cause of death was multiple blunt force injuries.

Toxicology testing performed at the FAA Forensic Sciences Laboratory was negative for carbon monoxide, ethanol, and drugs.

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Danny Cox; FAA/FSDO; Atlanta, GA Nicole L Charnon; Continental Motors; Mobile, AL Peter J Basile; Textron Aviation; Wichita, KS
Original Publish Date:	September 23, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98153

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).