



Aviation Investigation Final Report

Location:	Port Orange, Florida	Accident Number:	GAA18CA343
Date & Time:	May 24, 2018, 16:20 Local	Registration:	N5787L
Aircraft:	AMERICAN AA	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, shortly after departure, about 1,000 ft above ground level, the engine lost total power. While searching for an off-airport landing spot, he made a right turn toward the airport, positioned the fuel selector knob toward the second tank, and attempted to restart the engine. The engine restarted briefly but then lost power. He attempted to restart the engine again after he repositioned the fuel selector back to the original tank, but the engine did not start. He conducted a forced landing in a field with trees and heavy vegetation 2 miles west of the airport.

The pilot added that he "should have made a positive determination of fuel on board prior to takeoff."

The airplane sustained substantial damage to the right wing and fuselage.

Postaccident examination by the Federal Aviation Administration inspector revealed no distinctive fuel odor at the accident site, and only a cup of fuel was recovered from both tanks.

Probable Cause and Findings

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

The pilot's inadequate preflight inspection of the fuel, which resulted in fuel exhaustion and a subsequent total loss of engine power.

Findings

Aircraft	Fuel - Fluid level
Personnel issues	Preflight inspection - Pilot
Environmental issues	Tree(s) - Contributed to outcome

Factual Information

History of Flight

Initial climb	Fuel exhaustion (Defining event)
Initial climb	Attempted remediation/recovery
Landing	Off-field or emergency landing
Landing	Collision during takeoff/land

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	71,Male
Airplane Rating(s):	Single-engine land; Multi-engine land; Multi-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	May 23, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 18, 2018
Flight Time:	(Estimated) 26000 hours (Total, all aircraft), 600 hours (Total, this make and model), 23000 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AMERICAN	Registration:	N5787L
Model/Series:	AA 1	Aircraft Category:	Airplane
Year of Manufacture:	1969	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	AA1-0187
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	May 23, 2018 Annual	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2665.7 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	O-290-D2
Registered Owner:		Rated Power:	135 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:	KDAB, 41 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	19:53 Local	Direction from Accident Site:	16°
Lowest Cloud Condition:	Few / 3200 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	29°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Daytona Beach, FL (7FL6)	Type of Flight Plan Filed:	None
Destination:	Daytona Beach, FL (7FL6)	Type of Clearance:	None
Departure Time:	16:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	SPRUCE CREEK 7FL6	Runway Surface Type:	
Airport Elevation:	24 ft msl	Runway Surface Condition:	Vegetation
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	29.074167,-81.083335(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Cheryl King; FAA; Orlando, FL
Original Publish Date:	March 18, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97468

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).