Aviation Investigation Final Report

Location:	Alamo, Texas	**Accident Number:**	CEN16LA207
Date & Time:	June 3, 2016, 10:30 Local	**Registration:**	N418DS
Aircraft:	SMITH Capella FW2R	**Aircraft Damage:**	Substantial
Defining Event:	Fuel exhaustion	**Injuries:**	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the purpose of the flight was to use most of the fuel remaining in the fuel tanks so that he could store the airplane over the summer. While returning to the airport, the engine experienced a total loss of power. During the subsequent forced landing to a small field, the airplane hit a tree, resulting in substantial damage. The pilot stated that when the airplane was recovered, both fuel tanks were empty.

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 due to fuel exhaustion, which resulted in a forced landing and a collision with a tree.

Findings

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

Factual Information

History of Flight

Enroute	Fuel exhaustion (Defining event)
Enroute	Loss of engine power (total)
Emergency descent	Off-field or emergency landing
Enroute	Controlled flight into terr/obj (CFIT)

On June 3, 2016, about 1030 central daylight time, a Smith Capella Aircraft FW2R/XLS airplane, N418DS, was substantially damaged during a forced landing near Alamo, Texas. The commercial pilot had minor injuries. The airplane was registered to and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed at the time of the accident. The local flight departed McAllen Miller International Airport (MFE), McAllen, Texas, about 0900, and was returning to MFE at the time of the accident.

According to the pilot, the purpose of the flight was to use most of the fuel in the airplane, as he was going to park the airplane over the summer. In the past the automotive gasoline had "gummed up" his system sitting in the heat over the summer.

The pilot flew to South Texas International Airport (EBG), Edinburg, Texas, landed, called his wife, departed and conducted a touch and go landing, and then returned to MFE. EBG was 17 miles north of MFE. The airplane was at 2,500 feet above ground level and about 8 miles from the airport when the engine lost power. The pilot continued to fly the airplane towards the airport looking for a place to land while attempting to restore engine power. As he approached the airport his options diminished and during the forced landing to a small field the airplane hit a tree resulting in substantial damage to the wings and fuselage of the airplane.

The pilot stated that when the airplane was recovered, both fuel tanks were empty. He stated that he was confident that he just ran out of fuel resulting in the loss of engine power.

Pilot Information

Certificate:	Commercial	**Age:**	98,Male
Airplane Rating(s):	Single-engine land; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Sport pilot None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	May 4, 2016
Flight Time:	(Estimated) 13000 hours (Total, all aircraft), 300 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	SMITH Capella	**Registration:**	N418DS
Model/Series:	FW2R XLS	**Aircraft Category:**	Airplane
Year of Manufacture:	1999	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	DS4
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	November 14, 2015 Condition	**Certified Max Gross Wt.:**	1270 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	296 Hrs as of last inspection	**Engine Manufacturer:**	Rotax
ELT:	Installed	**Engine Model/Series:**	912UL
Registered Owner:	On file	**Rated Power:**	80 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:	KMFE,107 ft msl	**Distance from Accident Site:**	
Observation Time:	09:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	29.88 inches Hg	**Temperature/Dew Point:**	28°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	McAllen, TX (KMFE)	**Type of Flight Plan Filed:**	None
Destination:	McAllen, TX (KMPE)	**Type of Clearance:**	None
Departure Time:	09:00 Local	**Type of Airspace:**	Class G

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:**	26.19111,-98.115554

Administrative Information

Investigator In Charge (IIC):	Rodi, Jennifer
Additional Participating Persons:	Brian F Fricker; FAA FSDO; San Antonio, TX
Original Publish Date:	October 6, 2016
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=93314

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