



Aviation Investigation Final Report

Location:	King and Queen, Virginia	Accident Number:	GAA18CA431
Date & Time:	July 5, 2018, 16:15 Local	Registration:	N1401F
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, about 3 hours en route, he realized that the airplane's fuel level was very low. He started to look for nearby airports to land, but the engine rpm dropped, and he realized the airplane was going to run out of fuel before making it to an alternate airport. He decided to land in a nearby field, but on final, the engine experienced a total power loss. Subsequently, during the off-airport landing, the airplane's nosewheel touched down first and broke off. The airplane then "teetered," and both wings struck the ground before the airplane came to rest.

The airplane sustained substantial damage to both wings.

The pilot reported that he departed with about 40 gallons of fuel. He added that he must have burned off more fuel during taxi and takeoff than he realized and, that if he had stopped for fuel earlier in the flight, the accident would not have happened.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

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

Findings

Aircraft	Fuel - Fluid level
Personnel issues	Fuel planning - Pilot

Factual Information

History of Flight

Enroute	Fuel exhaustion (Defining event)
Enroute	Loss of engine power (total)
Enroute	Off-field or emergency landing
Landing	Part(s) separation from AC

Pilot Information

Certificate:	Private	Age:	46, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	November 22, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 17, 2017
Flight Time:	(Estimated) 160 hours (Total, all aircraft), 145 hours (Total, this make and model), 98 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1401F
Model/Series:	172 H	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17254896
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	February 10, 2017 Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3763 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-300-D
Registered Owner:	On file	Rated Power:	145 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:	KXSA, 135 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	20:16 Local	Direction from Accident Site:	346°
Lowest Cloud Condition:	Scattered / 3700 ft AGL	Visibility:	10 miles
Lowest Ceiling:	Broken / 4700 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 14 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.21 inches Hg	Temperature/Dew Point:	33°C / 25°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Morehead, KY (SYM)	Type of Flight Plan Filed:	None
Destination:	Melfa, VA (MFV)	Type of Clearance:	None
Departure Time:	13:15 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	37.720001,-76.840835(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Mark Jennings; FAA; Richmond, VA
Original Publish Date:	March 18, 2019
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97700

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