



Aviation Investigation Final Report

Location:	Fairfield, New Jersey	Accident Number:	ERA16CA203
Date & Time:	June 5, 2016, 12:05 Local	Registration:	N444VT
Aircraft:	Beech F33A	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the single-engine airplane stated that he departed on a cross country flight but did not visually check the amount of fuel in the main tanks before departure and relied on his fuel gauges, which indicated 2/3-full (left tank) and 1/2-full (right tank). Both wingtip fuel tanks were empty. The pilot departed with the fuel selector on the left main tank. He then switched over to the right main tank while en route, but noticed the needle on the fuel gauge was not moving as the flight progressed. The flight was uneventful and the pilot made an instrument approach into his destination airport; however, he had to execute a missed approach due to low clouds. During the missed approach procedure he entered visual conditions and asked air traffic control (ATC) if he could maintain visual conditions and circle to land. The pilot said that as he was turning crosswind the engine began to run rough and stopped producing power. He tried to re-start the engine twice as he prepared for a forced landing to a closer runway. The pilot did not have time to switch the fuel selector to the left tank and ended up striking trees and landing short of the runway threshold. A postaccident examination revealed substantial damage to the firewall and fuselage. The landing gear was also damaged. Neither the left nor right wing fuel tanks were breached. About 20 oz of fuel was drained from the right main tank and about 21 gallons of fuel were drained from the left main tank. Though the pilot said the right fuel gauge was not reading properly, he acknowledged that he should have monitored fuel burn rate over a given period of time versus relying on just the fuel gauge.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to adequately manage the available fuel supply, resulting in fuel starvation and a total loss of engine power.

Findings

Aircraft	Fuel - Fluid management
Personnel issues	Fuel planning - Pilot

Factual Information

History of Flight

Approach-IFR missed approach	Loss of engine power (total) (Defining event)
Emergency descent	Loss of engine power (total)
Landing	Hard landing

Pilot Information

Certificate:	Private	Age:	46, 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):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	June 5, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 2, 2016
Flight Time:	2100 hours (Total, all aircraft), 50 hours (Total, this make and model), 2000 hours (Pilot In Command, all aircraft), 57 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	Female
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	3-point
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:	Beech	Registration:	N444VT
Model/Series:	F33A A	Aircraft Category:	Airplane
Year of Manufacture:	1985	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	CE-1073
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:	December 21, 2015 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:	41 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3784 Hrs as of last inspection	Engine Manufacturer:	Continental Motors, Inc
ELT:	Installed, not activated	Engine Model/Series:	IO-550-B5F
Registered Owner:	On file	Rated Power:	300 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	CDW,172 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	11:53 Local	Direction from Accident Site:	10°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 1000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.81 inches Hg	Temperature/Dew Point:	19°C / 17°C
Precipitation and Obscuration:			
Departure Point:	Bedford, MA (BED)	Type of Flight Plan Filed:	IFR
Destination:	Caldwell, NJ (CDW)	Type of Clearance:	IFR
Departure Time:	10:45 Local	Type of Airspace:	Class D

Airport Information

Airport:	Essex County CDW	Runway Surface Type:	Asphalt
Airport Elevation:	172 ft msl	Runway Surface Condition:	Vegetation;Wet
Runway Used:	10	IFR Approach:	Circling
Runway Length/Width:	3719 ft / 75 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.875278,-74.281387(est)

Administrative Information

Investigator In Charge (IIC):	Read, Leah
Additional Participating Persons:	Joseph Martuge; FAA/FSDO; Teterboro, NJ
Original Publish Date:	July 14, 2016
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=93302

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