



Aviation Investigation Final Report

Location: Land O' Lakes, Wisconsin Accident Number: GAA19CA166

Date & Time: March 9, 2019, 12:30 Local Registration: N52047

Aircraft: Cessna 177RG Aircraft Damage: Substantial

Defining Event: Loss of engine power (total) **Injuries:** 2 Minor

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot reported that, on a previous flight, the airplane had been filled with fuel and flown for about 3.8 hours. He added that he attempted to refuel the airplane for the accident flight but that the self-service fuel station at the departure airport "failed to dispense fuel." He stated that he visually checked the tanks and calculated that there would be enough fuel to make the flight. He added that, after departing, during cruise flight about 1,800 ft above ground level, the "engine stopped" and that he then set the "best glide speed" toward a nearby airport. After realizing the airplane would not reach the airport, he executed a 180° turn and landed the airplane on a snow-covered, frozen lake with the landing gear retracted.

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

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 fuel planning, which resulted in fuel exhaustion and the subsequent total loss of engine power.

Findings

Aircraft	Fuel - Fluid level
Personnel issues	Fuel planning - Pilot

Page 2 of 5 GAA19CA166

Factual Information

History of Flight

Enroute-cruise	Fuel exhaustion
Enroute-cruise	Loss of engine power (total) (Defining event)
Enroute-cruise	Attempted remediation/recovery
Landing	Off-field or emergency landing

Pilot Information

Certificate:	Private	Age:	81,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 With waivers/limitations	Last FAA Medical Exam:	March 14, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 18, 2018
Flight Time:	(Estimated) 2720 hours (Total, all aircraft), 240 hours (Total, this make and model), 2720 hours (Pilot In Command, all aircraft)		

Page 3 of 5 GAA19CA166

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N52047
Model/Series:	177RG No Series	Aircraft Category:	Airplane
Year of Manufacture:	1977	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	177RG1153
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	July 5, 2018 Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3658 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	IO-360-A1B6D
Registered Owner:		Rated Power:	200 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:	KLNL,1704 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	17:35 Local	Direction from Accident Site:	149°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	14 knots / 20 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.87 inches Hg	Temperature/Dew Point:	1°C / -5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ontonagon, MI (OGM)	Type of Flight Plan Filed:	None
Destination:	Eagle River, WI (EGV)	Type of Clearance:	None
Departure Time:	13:10 Local	Type of Airspace:	Class G

Page 4 of 5 GAA19CA166

Airport Information

Airport:	KINGS LAND O'LAKES LNL	Runway Surface Type:	Snow
Airport Elevation:	1705 ft msl	Runway Surface Condition:	Snow
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	46.189167,-89.250556(est)

Administrative Information

Investigator In Charge (IIC):	Gutierrez, Eric
Additional Participating Persons:	Robert Helbing; FAA; Grand Rapids, MI
Original Publish Date:	November 6, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=99104

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.

Page 5 of 5 GAA19CA166