



# Aviation Investigation Final Report

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<b>Location:</b>	Farmingdale, New York	<b>Accident Number:</b>	ERA23LA050
<b>Date &amp; Time:</b>	November 5, 2022, 13:51 Local	<b>Registration:</b>	N51AL
<b>Aircraft:</b>	Beech B-60	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel exhaustion	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Business		

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## Analysis

The pilot reported that he was under the impression that his airplane’s inboard fuel tanks had been topped and he had 202 gallons on board prior to departure. He had a “standing order” with the airport’s fixed base operator to top the tanks; however, the fueling was not accomplished and he did not visually check the fuel level prior to departure. He entered 202 gallons in cockpit fuel computer and unknowingly commenced the flight with 61 gallons on board. Prior to reaching his destination, his fuel supply was exhausted, both engines lost all power, and he performed a forced landing in a cemetery about one mile from the airport. The pilot and his passenger had minor injuries. Inspectors with the Federal Aviation Administration examined the wreckage and determined that damage to the wings and fuselage was substantial. The pilot reported that there were no preaccident mechanical malfunctions or failures 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 inspection of the airplane’s fuel system, resulting in him commencing the flight with an inadequate fuel supply.

## Findings

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**Aircraft**

Fuel - Fluid level

**Personnel issues**

Preflight inspection - Pilot

## Factual Information

### History of Flight

<b>Approach-IFR initial approach</b>	Fuel exhaustion (Defining event)
<b>Emergency descent</b>	Off-field or emergency landing

### Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	64, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	August 18, 2021
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	September 29, 2022
<b>Flight Time:</b>	4672 hours (Total, all aircraft), 173 hours (Total, this make and model), 4039 hours (Pilot In Command, all aircraft), 23 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N51AL
<b>Model/Series:</b>	B-60	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1973	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	P-247
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	October 28, 2022 Annual	<b>Certified Max Gross Wt.:</b>	7000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	7476 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C126 installed	<b>Engine Model/Series:</b>	T10-541-E1C4
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	380 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KFRG,75 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	13:53 Local	<b>Direction from Accident Site:</b>	257°
<b>Lowest Cloud Condition:</b>	Few / 4100 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 6000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	14 knots / None	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.23 inches Hg	<b>Temperature/Dew Point:</b>	23°C / 16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Burlington, VT (BTV)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Farmingdale, NY	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	12:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Republic Airport FRG	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	81 ft msl	<b>Runway Surface Condition:</b>	Unknown
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor	<b>Latitude, Longitude:</b>	40.73805,-73.39278(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Ralph
<b>Additional Participating Persons:</b>	John Harris; FAA/FSDO; Farmingdale, NY
<b>Original Publish Date:</b>	June 6, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=106258">https://data.nts.gov/Docket?ProjectID=106258</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).