



# Aviation Investigation Final Report

<b>Location:</b>	Ferris, Texas	<b>Accident Number:</b>	GAA18CA149
<b>Date &amp; Time:</b>	March 1, 2018, 11:00 UTC	<b>Registration:</b>	N77MM
<b>Aircraft:</b>	Beech B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel exhaustion	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Ferry		

## Analysis

The pilot in the multi-engine, retractable landing gear airplane reported that, during an instrument flight rules cross-country flight, about 5,000 ft above mean sea level, the left engine surged several times and he performed an emergency engine shutdown. Shortly afterward, the right engine lost power.

During the emergency descent, the airplane struck treetops, and landed hard in a field with the landing gear retracted.

The airplane sustained substantial damage to both wings, the engine mounts, and the lower fuselage.

The pilot reported that he had requested 200 gallons of fuel from his home airport fixed base operator, but they did not fuel the airplane. The pilot did not check the fuel quantity during his preflight inspection.

According to the Federal Aviation Administration Airplane Flying Handbook, Chapter 2, page 2-7, pilots must always positively confirm the fuel quantity by visually inspecting the fuel level in each tank.

The pilot reported that there were no 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 fuel level, which resulted in a loss of engine power due to fuel exhaustion. Contributing to the accident was the pilot's failure to lower the landing gear before the emergency landing.

## Findings

<b>Personnel issues</b>	Preflight inspection - Pilot
<b>Aircraft</b>	Fuel - Not inspected
<b>Aircraft</b>	Fuel - Fluid level
<b>Aircraft</b>	Main landing gear - Not used/operated
<b>Environmental issues</b>	Tree(s) - Contributed to outcome

## Factual Information

### History of Flight

Enroute	Fuel exhaustion (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)
Landing	Hard landing

### Pilot Information

Certificate:	Private	Age:	79,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 Waiver time limited special	Last FAA Medical Exam:	December 16, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 27, 2017
Flight Time:	(Estimated) 6400 hours (Total, all aircraft), 2200 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N77MM
Model/Series:	B 60	Aircraft Category:	Airplane
Year of Manufacture:	1982	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	P-587
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	December 1, 2017 Continuous airworthiness	Certified Max Gross Wt.:	6775 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	2210 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	C91 installed, not activated	Engine Model/Series:	TIO-541
Registered Owner:		Rated Power:	380 Horsepower
Operator:		Operating Certificate(s) Held:	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>	KCRS, 448 ft msl	<b>Distance from Accident Site:</b>	16 Nautical Miles
<b>Observation Time:</b>	16:53 Local	<b>Direction from Accident Site:</b>	185°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	6 miles
<b>Lowest Ceiling:</b>	Overcast / 1800 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	13 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	350°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.11 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 12°C
<b>Precipitation and Obscuration:</b>	Moderate - None - Mist		
<b>Departure Point:</b>	DALLAS, TX (ADS )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	MEXIA, TX (LXY )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	10:30 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	32.301387,-96.372222(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Michael
<b>Additional Participating Persons:</b>	Chuck Kuykendall; FAA; Irving, TX
<b>Original Publish Date:</b>	August 27, 2018
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=96829">https://data.nts.gov/Docket?ProjectID=96829</a>

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