



# 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

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

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	79, 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>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Waiver time limited special	<b>Last FAA Medical Exam:</b>	December 16, 2015
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	July 27, 2017
<b>Flight Time:</b>	(Estimated) 6400 hours (Total, all aircraft), 2200 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N77MM
<b>Model/Series:</b>	B 60	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1982	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	P-587
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	December 1, 2017 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	6775 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	2210 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	TIO-541
<b>Registered Owner:</b>	MIKE & MAYO PARTNERS LP	<b>Rated Power:</b>	380 Horsepower
<b>Operator:</b>	MIKE & MAYO PARTNERS LP	<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>	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>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<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>

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](#).