



# Aviation Investigation Final Report

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<b>Location:</b>	Big Spring, Texas	<b>Accident Number:</b>	GAA18CA152
<b>Date &amp; Time:</b>	March 8, 2018, 20:15 Local	<b>Registration:</b>	N8191B
<b>Aircraft:</b>	Piper PA 32R	<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 - Personal		

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## Analysis

The pilot reported that, although the airplane's fuel gauge was providing intermittent information, he decided to depart on a night cross-country flight. During the flight, the engine lost power. The pilot declared an emergency and selected a road to land on. During the landing, the airplane struck power line wires, impacted the ground, and came to rest inverted.

The airplane sustained substantial damage to both wings, the engine mounts, the rudder and the horizontal stabilizer.

Examination of the airplane by a Federal Aviation Administration Aviation safety inspector revealed that the fuel selector was set to the right-wing tank, and there was no usable fuel in the right-wing tank. The left-wing tank contained usable fuel.

Per Title 14 *CFR* 91.205, no person may operate a powered civil aircraft with a standard category US airworthiness certificate with an inoperative 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 manage the airplane's fuel supply, which resulted in fuel starvation. Contributing to the accident was the pilot's decision to attempt the flight with an inoperative fuel gauge.

## Findings

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<b>Aircraft</b>	Fuel - Fluid management
<b>Personnel issues</b>	Task monitoring/vigilance - Pilot
<b>Environmental issues</b>	Wire - Effect on operation
<b>Personnel issues</b>	Incorrect action selection - Pilot

## Factual Information

### History of Flight

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

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	33, Male
<b>Airplane Rating(s):</b>	Single-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 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	March 6, 2014
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	June 10, 2016
<b>Flight Time:</b>	(Estimated) 530 hours (Total, all aircraft), 240 hours (Total, this make and model), 530 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8191B
<b>Model/Series:</b>	PA 32R 301T	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1980	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	32R-8029084
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	May 11, 2017 Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2812.51 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	TIO540S1AD
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	300 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>	Night
<b>Observation Facility, Elevation:</b>	KMDD,2803 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	02:15 Local	<b>Direction from Accident Site:</b>	140°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	11 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	29.97 inches Hg	<b>Temperature/Dew Point:</b>	16°C / -4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	GEORGETOWN, TX (GTU)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	MIDLAND, TX (MDD)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	MIDLAND AIRPARK MDD	<b>Runway Surface Type:</b>	Dirt;Grass/turf
<b>Airport Elevation:</b>	2805 ft msl	<b>Runway Surface Condition:</b>	Dry
<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>		<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>	32.036666,-102.101669(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Michael
<b>Additional Participating Persons:</b>	Steven Miller; FAA; Lubbock, 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=96845">https://data.nts.gov/Docket?ProjectID=96845</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](#).