



# Aviation Investigation Final Report

<b>Location:</b>	Fort Worth, Texas	<b>Accident Number:</b>	CEN20CA146
<b>Date &amp; Time:</b>	April 10, 2020, 17:44 Local	<b>Registration:</b>	N487J
<b>Aircraft:</b>	Pitts S2	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, during his preflight inspection, he determined that the fuel tank was about 1/2 full (12 gallons). After the airplane departed the airport and reached about 1,300 ft above ground level, the engine lost all power. The pilot turned back to the airport and chose a field for a forced landing. The airplane landed hard, the landing gear collapsed, and the airplane then flipped over and came to rest upside down, which resulted in substantial damage to the vertical stabilizer and rudder. Postaccident examination of the airplane revealed that the fuel tank contained about 1 gallon of fuel. Following the accident, the pilot stated that he realized he had misread the fuel gauge and that there were only about 3 gallons of fuel onboard at takeoff. Based on this information, it is likely the loss of engine power was due to fuel exhaustion.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inadequate preflight inspection of the fuel level, which resulted in a total loss of engine power due to fuel exhaustion.

## Findings

<b>Personnel issues</b>	Fuel planning - Pilot
<b>Aircraft</b>	Fuel - Inadequate inspection
<b>Aircraft</b>	Fuel - Fluid level

## Factual Information

### History of Flight

Prior to flight	Preflight or dispatch event
Enroute	Fuel exhaustion
Enroute	Loss of engine power (total) (Defining event)
Landing	Off-field or emergency landing
Landing	Hard landing
Landing	Landing gear collapse
Landing	Roll over

### Pilot Information

Certificate:	Airline transport; Flight engineer; Military; Private	Age:	61, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	January 13, 2020
Occupational Pilot:	No	Last Flight Review or Equivalent:	April 6, 2020
Flight Time:	(Estimated) 20000 hours (Total, all aircraft), 300 hours (Total, this make and model), 10000 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	None
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Pitts	<b>Registration:</b>	N487J
<b>Model/Series:</b>	S2 B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1987	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Aerobatic; Normal	<b>Serial Number:</b>	5127
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	January 2, 2020 Annual	<b>Certified Max Gross Wt.:</b>	1700 lbs
<b>Time Since Last Inspection:</b>	1951 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	AEIO-540-D4A5
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	260 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>	KNFW, 608 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	17:52 Local	<b>Direction from Accident Site:</b>	131°
<b>Lowest Cloud Condition:</b>	Few / 25000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots / None	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.97 inches Hg	<b>Temperature/Dew Point:</b>	23°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Forth Worth, TX	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Cleburne, TX (CPT )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:40 Local	<b>Type of Airspace:</b>	Unknown

## 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>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor	<b>Latitude, Longitude:</b>	32.815555,-97.543052

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Folkerts, Michael
<b>Additional Participating Persons:</b>	David Mikolajewski; Flight Standards District Office; Irving, TX
<b>Original Publish Date:</b>	September 21, 2020
<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=101165">https://data.nts.gov/Docket?ProjectID=101165</a>

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