



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	SINTON, Texas	<b>Accident Number:</b>	CEN18LA177
<b>Date &amp; Time:</b>	March 7, 2018, 12:30 Local	<b>Registration:</b>	N66786
<b>Aircraft:</b>	Cessna 150M	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (partial)	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The commercial pilot reported that after conducting a touch-and-go landing, the airplane's engine experienced a partial loss of power near the end of the runway. The airplane was unable to gain altitude, so he landed in an open field. During the forced landing, the airplane's engine mount was bent. According to the pilot, the airplane's carburetor was full of carbon and that the exhaust pipe was black from carbon buildup. Although it is unlikely that the black material in the carburetor was carbon, the excessive buildup within the carburetor would have adversely affected the engine's performance. The pilot stated that the carburetor was unable to properly regulate the fuel/air mixture due to the excessive buildup, corrosion in and on the main nozzle, and basic wear and tear, which caused the engine to flood and experience a partial loss of engine power. A review of the airplane's maintenance logbook showed that the carburetor had not been rebuilt since it was installed in 1974, about 44 years before the accident. Thus, it is likely that inadequate service and repair of the airplane's carburetor led to partial loss of engine power.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The inadequate service and repair of the airplane's carburetor, which led to a partial loss of engine power during takeoff and resulted in a forced landing.

## Findings

<b>Aircraft</b>	Fuel control/carburetor - Fatigue/wear/corrosion
<b>Aircraft</b>	Fuel control/carburetor - Not serviced/maintained
<b>Personnel issues</b>	Repair - Maintenance personnel

# Factual Information

## History of Flight

Initial climb	Loss of engine power (partial) (Defining event)
Landing	Off-field or emergency landing
Landing	Collision with terr/obj (non-CFIT)

On March 7, 2018, about 1230 central daylight time, a Cessna 150M airplane, N66786, experienced a partial loss of engine power after takeoff and impacted terrain during a forced landing to a field near the Alfred C 'Bubba' Thomas Airport (T69), Sinton, Texas. The pilot and one passenger were not injured, and the airplane sustained substantial damage to the engine mount. The airplane was owned and operated by the pilot under the provisions of the Title 14 *Code of Federal Regulations* Part 91 as a personal flight. Day visual meteorological conditions prevailed at the time of the accident, which was not operated on a flight plan. The flight departed T69 about 1130 on a local flight.

The pilot reported that he conducted a local flight and returned to land at T69 and executed a touch-and-go landing to runway 32. After touching down and taking off again for another touch-and-go, the airplane's engine experienced a partial loss of engine power near the end of the runway. He was unable to gain altitude, so he turned to the right and landed in an open field. During the forced landing the airplane's engine mount was bent; otherwise the airplane appeared to be undamaged.

The pilot reported that he examined the airplane's carburetor and found that was full of carbon, and that the exhaust pipe was pitch black from carbon buildup. He stated that the carburetor was unable to properly regulate the fuel/air mixture due to excessive carbon buildup, corrosion in and on the main nozzle, and basic wear and tear, which caused the engine to flood and experience a partial loss of engine power. He stated that a review of the airplane's maintenance logbook showed that the carburetor had not been rebuilt since it was installed in 1974.

The pilot stated that a new rebuilt carburetor was installed on the engine and it now runs fine. The airplane recently had an annual maintenance inspection and he reported that "everything that may have caused the engine problem checked out okay."

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	57,Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<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 With waivers/limitations	<b>Last FAA Medical Exam:</b>	June 7, 2017
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1100 hours (Total, all aircraft), 250 hours (Total, this make and model), 1100 hours (Pilot In Command, all aircraft), 98 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N66786
<b>Model/Series:</b>	150M	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1974	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	15076279
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	May 1, 2017 Annual	<b>Certified Max Gross Wt.:</b>	1601 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3727.6 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>		<b>Engine Model/Series:</b>	O-200-A
<b>Registered Owner:</b>		<b>Rated Power:</b>	100 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>	CRP, 46 ft msl	<b>Distance from Accident Site:</b>	16 Nautical Miles
<b>Observation Time:</b>	11:51 Local	<b>Direction from Accident Site:</b>	180°
<b>Lowest Cloud Condition:</b>	Scattered / 12000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	11 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	50°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.37 inches Hg	<b>Temperature/Dew Point:</b>	17°C / 2°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Sinton, TX (T69 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Sinton, TX (T69 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Alfred C Thomas Airport T68	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	48 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	32	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4323 ft / 55 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	28.03861,-97.542503

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Silliman, James
<b>Additional Participating Persons:</b>	Victor Lopez; FAA San Antonio FSDO; Houston, TX
<b>Original Publish Date:</b>	June 3, 2020
<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=97271">https://data.nts.gov/Docket?ProjectID=97271</a>

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).