Aviation Investigation Final Report

Location:	Houston, Texas	**Accident Number:**	CEN16LA225
Date & Time:	June 19, 2016, 22:32 Local	**Registration:**	N5661R
Aircraft:	Piper PA 24	**Aircraft Damage:**	Substantial
Defining Event:	Fuel exhaustion	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot was about 6 miles from the destination airport when he informed the controller that the airplane had lost all engine power and would not be able to make it to the airport. The airplane struck the roof of a 40-ft-tall warehouse. No fuel was found in either fuel tank, and there was no evidence of a fuel spill. The pilot stated after the accident that the engine had lost power due to fuel exhaustion. No information was obtained during the investigation that detailed where the pilot had departed from or how much fuel was on board the airplane at the start of the accident flight. It is likely that the pilot departed with insufficient fuel on board for the planned flight or that he did not monitor his fuel usage during the flight; either of these scenarios would have resulted in the loss of engine power due to fuel exhaustion.

Probable Cause and Findings

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

The total loss of engine power due to fuel exhaustion.

Findings

Aircraft	Fuel - Fluid level
Environmental issues	Residence/building - Contributed to outcome

Factual Information

History of Flight

Approach	Fuel exhaustion (Defining event)
Approach	Loss of engine power (total)
Emergency descent	Collision with terr/obj (non-CFIT)

On June 19, 2016, about 2232 central daylight time, a Piper PA-24-180 airplane, N5661R, was substantially damaged after it impacted the roof of a warehouse following a complete loss of engine power during approach to William P. Hobby Airport (HOU), Houston, Texas. The pilot sustained serious injuries. The airplane was registered to and operated by the pilot as a 14 *Code of Federal Regulations* Part 91 personal flight. Night visual meteorological conditions prevailed, and no flight plan had been filed. The airplane departed from an unknown airport near St. Louis, Missouri, about 1730 and was destined for HOU.

When the airplane was about six miles north of HOU the pilot informed the controller he had lost all engine power and would not be able to make it the to airport. The controller dispatched emergency equipment to the airplane's last known position and a police helicopter quickly found the wreckage on the roof of a 40-foot tall warehouse. Emergency responders treated the pilot at the scene, lowered him from the warehouse roof, and transported him to the hospital. There was no evidence of a fuel spill and there was no post-impact fire .

According to a Federal Aviation Administration (FAA) inspector who examined the airplane, no fuel was found in either fuel tank. In a hospital interview, the pilot told the inspector that the engine lost power due to fuel exhaustion. No information was obtained during the investigation that detailed where the pilot had departed from or how much fuel was onboard the airplane at the start of the accident flight.

Pilot Information

Certificate:	Private	**Age:**	57,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Unknown	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	August 4, 2015
Flight Time:	(Estimated) 200 hours (Total, all aircraft), 24 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N5661R
Model/Series:	PA 24	**Aircraft Category:**	Airplane
Year of Manufacture:	1959	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-732
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	January 16, 2016 Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:	22 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4090 Hrs at time of accident	**Engine Manufacturer:**	LYCOMING
ELT:		**Engine Model/Series:**	O-360-A1A
Registered Owner:	On file	**Rated Power:**	180 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	KHOU,47 ft msl	**Distance from Accident Site:**	6 Nautical Miles
Observation Time:	21:53 Local	**Direction from Accident Site:**	153°
Lowest Cloud Condition:	Few / 3000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	150°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	27°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	St. Loui, MO (SUS)	**Type of Flight Plan Filed:**	None
Destination:	Houston, TX (HOU)	**Type of Clearance:**	VFR
Departure Time:	17:30 Local	**Type of Airspace:**	Class B

Airport Information

Airport:	William P. Hobby HOU	**Runway Surface Type:**	Concrete
Airport Elevation:	46 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	12L	**IFR Approach:**	None
Runway Length/Width:	5148 ft / 100 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	29.732221,-95.335556(est)

Administrative Information

Investigator In Charge (IIC):	Latson, Thomas
Additional Participating Persons:	Christopher Cotton; FAA Houston FSDO; Houston, TX John Butler; Lycoming Engines; Williamsport, PA
Original Publish Date:	November 6, 2019
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=93412