



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Los Angeles, California	<b>Accident Number:</b>	WPR22LA076
<b>Date &amp; Time:</b>	January 9, 2022, 14:09 Local	<b>Registration:</b>	N8056L
<b>Aircraft:</b>	Cessna 172H	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel related	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that the airplane was stored outdoors for several weeks before the accident flight. The pilot observed water in the left fuel tank during the preflight inspection and he extracted about 1 ounce of water before he derived that there wasn't much water in the fuel system. He started the engine, taxied onto the runway, and took off to the southeast. During the initial climb, the engine lost power about 200 ft above ground level. The pilot declared an emergency to the tower controller and initiated a descending right turn. The airplane impacted the ground and came to rest on an active railroad crossing. The pilot was extracted from the accident airplane moments before it was struck by a passenger train.

During the weeks prior to the accident, it had rained for 18 days. Postaccident examination of the airframe revealed that the right and left wing tank fuel cap gaskets were deteriorated and were not intact. Excessive quantities of corrosion and rust were observed throughout the gascolator and the carburetor.

Postaccident examination of the airplane's engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have prevented normal operation. It is likely that the deteriorated fuel caps allowed water to enter the fuel tanks when rain was present and that water remained in the airplane's fuel system after the pilot's preflight inspection and engine runup. A total loss of power during the initial climbout likely occurred when the contaminated fuel reached the engine.

## 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 during which he failed to remove all water contamination in the fuel system, which resulted in a total loss of engine power on takeoff. Contributing to the accident was the condition of the fuel caps, which allowed the water to enter the fuel system.

## Findings

<b>Personnel issues</b>	Preflight inspection - Pilot
<b>Aircraft</b>	Water - Fluid condition
<b>Aircraft</b>	(general) - Damaged/degraded

# Factual Information

## History of Flight

Initial climb	Fuel related (Defining event)
Initial climb	Loss of engine power (total)

On January 09, 2022, about 1409 Pacific standard time, a Cessna 172H, N8056L, was substantially damaged when it was involved in an accident near Los Angeles, California. The private pilot sustained serious injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, the accident occurred during the airplane's first flight of the day. The airplane was stored outdoors for several weeks prior to the accident flight. During the pilot's preflight airplane inspection, he observed water in the fuel tanks. He reported that he took a fuel sample from the left wing fuel tank, because he could see water in the tank through the filler port. He extracted about one ounce of water from the left tank and derived that, "there wasn't that much water in the fuel system."

The pilot reported that the airplane was fueled several weeks prior to the accident. He affirmed that the left wing fuel tank contained 2 gallons of 100LL and the right wing fuel tank contained 16 gallons of 100LL before starting the engine. He started the engine with the fuel selector in the BOTH tank position and ran the engine about 2 minutes, before he contacted the Whiteman Airport, Los Angeles, California (WHP) ground controller at 1404. He subsequently contacted the tower controller at 1406 to report holding short of runway 12 for departure.

The pilot recalled that the flaps were set to 0° and the mixture was rich, but he could not recall if the airplane had a trim wheel. At 1408 the accident airplane was cleared for takeoff from runway 12, and the pilot taxied onto the active runway and applied full power initiating the takeoff roll. During the initial climb, about 200 ft, the engine lost power. He attempted to restart the engine by turning the ignition key to engage the starter, but the engine did not restart. At 1409 the pilot transmitted a May Day call to the tower controller and initiated a turn to the right. At 1410 the airplane impacted the ground and came to rest on an active railroad crossing. Moments later, bystanders extracted the pilot from the accident airplane, just before the airplane was struck by a Metrolink passenger train.

Climatological observation records from the National Oceanic and Atmospheric Administration revealed that during the weeks leading up to the accident, rain was observed in and around WHP. The observation indicated that the presence of rain was detected a total of 18 days while the airplane was stored outdoors.

Postaccident examination of the accident airframe revealed that the right wing tank fuel cap was present, but missing the silicone vent. The right fuel cap rubber gasket was hard to the touch, brittle, and portions of the outer gasket had deteriorated and were missing. The left wing tank fuel cap was present, but the rubber gasket was hard to the touch, brittle, and portions of the outer gasket had deteriorated and were missing. Continuity of the fuel system was observed from the left and right wing fuel tank inboard fuel pickups, through the fuel selector and gascolator using compressed air to verify volumetric flow.

The gascolator was disassembled and revealed about 1 teaspoon of a white, granulated, corrosion substance. Internally, the gascolator bowl was pitted, and the filter screen revealed a vivid line of corrosion emanating from the top left to the bottom right, consistent with the accident airplane's postimpact resting position. The presence of rust and the corroded substance were observed throughout the gascolator. The carburetor was disassembled and about ½ teaspoon of the corroded substance was extracted from the fuel inlet screen. Rust, and the corroded substance were observed throughout the carburetor.

Postaccident examination of the airplane's engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have prevented normal operation.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	70, 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>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	None With waivers/limitations	<b>Last FAA Medical Exam:</b>	July 11, 2019
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 1506 hours (Total, all aircraft), 706 hours (Total, this make and model), 1100 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N8056L
<b>Model/Series:</b>	172H	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1967	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17256256
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	March 5, 2021 Annual	<b>Certified Max Gross Wt.:</b>	2300 lbs
<b>Time Since Last Inspection:</b>	9.6 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	8628.9 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated	<b>Engine Model/Series:</b>	O-300-D
<b>Registered Owner:</b>	MARK JENKINS	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	MARK JENKINS	<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>	KWHP, 1003 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	13:55 Local	<b>Direction from Accident Site:</b>	327°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	150°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.26 inches Hg	<b>Temperature/Dew Point:</b>	22°C / -5°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Los Angeles, CA	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Oxnard, CA (OXR)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	WHITEMAN WHP	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1003 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	12	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4120 ft / 75 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<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 Serious	<b>Latitude, Longitude:</b>	34.254307,-118.40925(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Michael
<b>Additional Participating Persons:</b>	Patrick Obrien; FAA; Van Nuys, CA
<b>Original Publish Date:</b>	June 14, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 3</a>
<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=104510">https://data.nts.gov/Docket?ProjectID=104510</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](#).