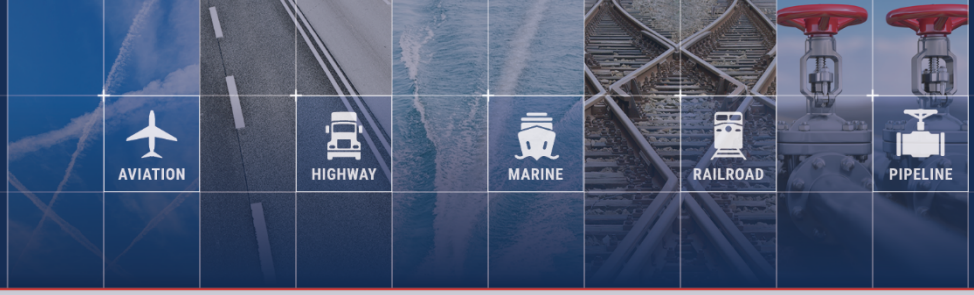

Aviation Investigation Final Report

Location:	Fallon, Nevada	**Accident Number:**	LAX03LA190
Date & Time:	June 10, 2003, 09:30 Local	**Registration:**	N5058P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane collided with obstacles during an emergency landing on a highway following a loss of engine power during cruise flight. Prior to departure, the pilot had visually checked the airplane's fuel tanks, but did not use a dipstick or other means to quantify the fuel on board. He then set the fuel selector to the right tank deeming it the fullest one at an estimated ¾ capacity. Not wanting to wait for fuel, the pilot departed the airport and left the fuel selector on the right tank for the duration of the flight until the engine lost power. Post accident investigation of the aircraft by an A&P mechanic revealed the right tank to be "completely dry." The left still had ½ to 1 inch of fuel remaining. After refueling the aircraft, an engine run-up did not reveal any discrepancies with either the engine, the engine's fuel flow, or the engine driven and electrical fuel pumps. The pilot later stated that the accident could have been prevented by "not relying on the fuel gage" and by sticking the tanks "with a paint stick or something appropriate" instead of relying on a visual inspection to accurately determine fuel quantity in the tanks.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight and his mismanagement of the fuel supply by his failure to switch fuel tanks.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings
1. (C) FLUID,FUEL - STARVATION
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. (C) FUEL TANK SELECTOR POSITION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings
4. OBJECT - VEHICLE
5. OBJECT - SIGN

Factual Information

On June 10, 2003, about 0930 Pacific daylight time, a Piper PA-24-250, N5058P, lost engine power during cruise and collided with obstacles during a forced landing on a highway near Fallon, Nevada. The pilot was operating the airplane under the provisions of 14 CFR Part 91. The pilot was not injured; however, the airplane sustained substantial damage. The local personal flight departed Fallon Municipal Airport (FLX), Fallon, at 0815 for a flight to Derby Field (LOL), Lovelock, Nevada, where he completed a touch-and-go. The flight was returning to Fallon when the accident occurred. Day visual meteorological conditions prevailed and no flight plan had been filed. The primary wreckage was at 39 degrees 41 minutes north latitude and 118 degrees 44 minutes west longitude.

Prior to departure, the pilot had visually looked the airplane's fuel tanks, but did not use a dipstick or other means to quantify the amount of fuel on board. He then set the fuel selector to the right tank estimating it to be the fullest one at approximately ¾ capacity. Not wanting to wait for fuel, the pilot departed the airport and placed the fuel selector on the right tank for the duration of the flight until the engine failure.

Upon returning from Lovelock, the airplane experienced a power failure during cruise at 5,500 feet. During the descent onto a highway, the pilot attempted to restart the engine by switching tanks, checking the magneto settings, and switching on the carburetor heat. The fuel selector, which had been set on the right tank for the entire flight, was switched to the left tank. Following this, the engine "gained rpm's but then quit again." The pilot then switched the selector back to the right tank, which still indicated fuel present. During the following landing sequence, the pilot maneuvered the airplane onto the highway, but was forced to swerve into a ditch to avoid an oncoming car. The wing then impacted several sign posts before the airplane came to rest in a ditch.

Following the accident, an airplane mechanic checked the wing tanks and found the right one "completely dry." The left one had ½ to 1 inch of fuel remaining. A post accident fuel boost pump check produced fuel from the left tank. A later refueling and run-up did not reveal any discrepancies with either the engine, the engine's fuel flow, or the engine driven and electrical fuel pumps.

In a written statement, the pilot said that the accident could have been prevented by "not relying on the fuel gage" and by sticking the tanks "with a paint stick or something appropriate" instead of relying on a visual inspection to accurately determine the fuel quantity in the tanks.

Pilot Information

Certificate:	Private	**Age:**	65,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	August 14, 2001
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	October 18, 2002
Flight Time:	164 hours (Total, all aircraft), 97 hours (Total, this make and model), 58 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N5058P
Model/Series:	PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-507
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	January 2, 2003 Annual	**Certified Max Gross Wt.:**	2800 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	3288 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-540
Registered Owner:	On file	**Rated Power:**	250 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KNFL,3934 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	09:56 Local	**Direction from Accident Site:**	150°
Lowest Cloud Condition:	Few / 15000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.9 inches Hg	**Temperature/Dew Point:**	22°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lovelock, NV (KLOL)	**Type of Flight Plan Filed:**	None
Destination:	Fallon , NV (KFLX)	**Type of Clearance:**	None
Departure Time:	08:40 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	39.683334,-118.748611

Administrative Information

Investigator In Charge (IIC):	Rich, Jefferey
Additional Participating Persons:	Harry Smith; Federal Aviation Administration; Reno, NV
Original Publish Date:	September 29, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=57191