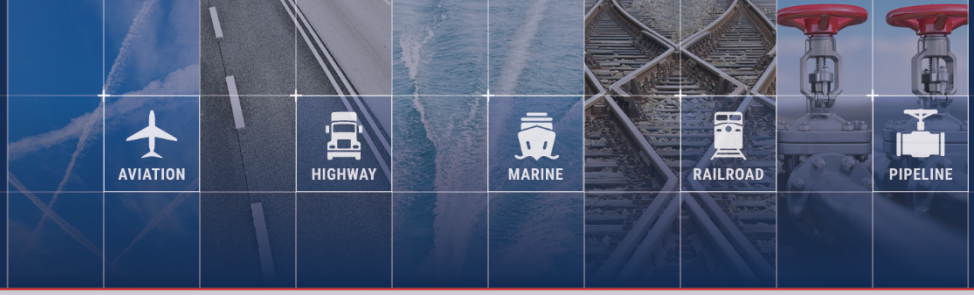

Aviation Investigation Final Report

Location:	Carson City, Nevada	**Accident Number:**	LAX06CA176
Date & Time:	May 19, 2006, 11:15 Local	**Registration:**	N7857P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane landed gear up during a forced landing in a field following an in-flight loss of engine power. The airplane experienced a loss of engine power after about an hour's flight. The pilot pulled the carburetor heat on first, and then turned on the auxiliary fuel pump, but power was not restored. The pilot then turned the fuel selector from the left main fuel tank to the left auxiliary tank and waited for 1 minute. Power was still not restored. He switched to the right auxiliary fuel tank but still nothing happened. The pilot attempted to restore power by using the primer to pump fuel to the engine. The pilot committed to an off-field landing in an alfalfa field after failing to restore engine power. After clearing power lines, the pilot extended full flaps and opted not to extend his landing gear. An inspection performed at the scene of the accident by Federal Aviation Administration inspectors revealed that both main fuel tanks were completely dry and both auxiliary fuel tanks were full. An inspector placed the fuel selector on the auxiliary tank position and turned on the boost pump. After several seconds, the fuel system pressurized and operated normally. No mechanical problems were found with the fuel system or the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to the pilot's inadequate fuel system management, which resulted in fuel starvation and the loss of engine power.

Findings

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

Findings
1. (C) FLUID,FUEL - STARVATION
2. (C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
3. (C) FUEL MANAGEMENT - INADEQUATE - PILOT IN COMMAND

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

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings
4. TERRAIN CONDITION - OPEN FIELD

Factual Information

On May 19, 2006, about 1115 Pacific daylight time, a Piper PA-24-250, N7857P, performed a gear up forced landing following a loss of engine power near Carson City, Nevada. The owner was operating the airplane under the provisions of 14 CFR Part 91. The private pilot, the sole occupant, was not injured; the airplane sustained substantial damage. The cross-country flight departed Rio Vista, California, municipal airport about 1010, with a planned destination of Minden, Nevada. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot submitted a written report. He departed Rio Vista and flew north of Reno at 9,000 feet to avoid bad weather over Lake Tahoe. He contacted Reno approach control 10 miles east of Truckee, California, and stayed in contact with them throughout the flight. At this point, the pilot experienced a loss of engine power. He pulled the carburetor heat on first, and then turned on the auxiliary fuel pump, but power was not restored. The pilot then turned the fuel selector from the main fuel tank to the left auxiliary tank and waited for 1 minute. Power was still not restored. He switched to the right auxiliary fuel tank, but still nothing happened. The pilot attempted to restore power by using the primer to pump fuel to the engine. While troubleshooting the problem, the pilot was in contact with Reno approach control about his situation. After failing to restore engine power, the pilot committed himself to an emergency landing in an alfalfa field east of Washoe Lake. After clearing power lines, the pilot extended full flaps and opted not to extend his landing gear.

A Federal Aviation Administration inspector examined the airplane at the accident site, and submitted a written report. The inspection revealed that both main fuel tanks were completely dry and both auxiliary fuel tanks were full. The inspector placed the fuel selector on the auxiliary tank, and turned on the boost pump. After several seconds, the fuel system pressurized, and operated normally. He found no mechanical problems with the fuel system or the airplane.

According to the Piper Comanche, PA-24-250, Pilot Operating Handbook, the most common cause of an engine failure is mismanagement or malfunction of the fuel system. In this situation, the handbook says the first thing the pilot should do is "move the fuel selector valve to the tank not being used." This will often keep the engine running if there is no fuel system malfunction. If switching the fuel selector does not restore the engine, the pilot should check fuel pressure, turn on the electric fuel pump, push mixture control to full "RICH," apply carburetor heat, and check the ignition switch.

Pilot Information

Certificate:	Private	**Age:**	58,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3	**Last FAA Medical Exam:**	August 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1605 hours (Total, all aircraft), 1000 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N7857P
Model/Series:	PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	243080
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	December 1, 2005 Annual	**Certified Max Gross Wt.:**	3800 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-540-A
Registered Owner:	Lester A. Conklin	**Rated Power:**	250 Horsepower
Operator:	Dennis M. Hope	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 6500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Rio Vista, CA (088)	**Type of Flight Plan Filed:**	None
Destination:	Minden, NV (MEV)	**Type of Clearance:**	VFR flight following
Departure Time:		**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	
Total Injuries:	1 None	**Latitude, Longitude:**	39.333332,-119.75

Administrative Information

Investigator In Charge (IIC):	Plagens, Howard
Additional Participating Persons:	Gary Hamlin; Federal Aviation Administration; Reno, NV
Original Publish Date:	December 20, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=63735