



National Transportation Safety Board Aviation Accident Final Report

Location:	Palmdale, CA	Accident Number:	LAX04LA112
Date & Time:	02/01/2004, 1627 PST	Registration:	N4861F
Aircraft:	Piper PA-28-181	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane collided with power lines during a forced landing following a loss of engine power. After about 2 hours 40 minutes of flight, the pilot retarded the throttle to begin his descent into an airport where he planned to refuel. The engine immediately lost power, and he felt roughness and a vibration. He turned the electric fuel boost pump on, and switched fuel tanks. The engine continued to sputter. He could not make a nearby airfield, and set up to land on a road. The airplane collided with power lines on the way down and the rudder separated from the airplane. The pilot was able to land on the road and then collided with multiple obstacles during the ground roll. Examination revealed that the fuel selector valve was on the right tank. The left fuel tank did not sustain mechanical damage, but the right tank was ruptured. There was about 1 quart of fuel in the left tank. There was about 50 milliliters of fuel in the gascolator and the carburetor contained about 75 milliliters of fuel. Fuel was added to the airplane and the engine was test run using the airplane systems. The engine started immediately. There were no leaks, and the engine did not hesitate, sputter, or backfire.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: loss of engine power for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: DESCENT

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. OBJECT - WIRE, TRANSMISSION

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

3. OBJECT - FENCE POST
4. OBJECT - POLE

Factual Information

On February 1, 2004, at 1627 Pacific standard time, a Piper PA-28-181, N4861F, collided with power lines during a forced landing following a loss of engine power at Palmdale, California. Continental Flight Center was operating the rental airplane under the provisions of 14 CFR Part 91. The commercial pilot and three passengers were not injured; the airplane sustained substantial damage. The personal cross-country flight departed Bullhead City, Arizona, about 1445 mountain standard time, en route to Agua Dulce, California. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot submitted a written report. He stated that he climbed to 4,500 feet after departure. He descended to 3,500 feet near Barstow, California. He climbed again south of Palmdale. He had just retarded the throttle to begin his descent into Agua Dulce where he planned to refuel. The engine immediately lost power, and he felt roughness and a vibration. He turned the electric fuel boost pump on, and switched fuel tanks. The engine continued to sputter. He tried to contact Palmdale's air traffic control tower, but determined that he could not make the field. He set up to land on a road. The airplane collided with power lines on the way down. The rudder separated from the airplane, but the pilot landed the airplane on the road. The nose gear separated at the curb. The right wing collided with a tree, and part of the wing separated. The airplane came to rest in a parking lot.

The left fuel tank did not sustain mechanical damage, but the right tank was ruptured. The recovery agent drained about 1 quart of a blue fluid from the left tank.

The National Transportation Safety Board investigator-in-charge (IIC) examined the airplane at Aircraft Recovery Service, Littlerock, California, on February 10, 2004.

The fuel selector valve was on the right tank. The IIC drained about 50 milliliters of a blue fluid that smelled like aviation gasoline from the gascolator.

The carburetor air box was not contaminated. The throttle and mixture controls at the carburetor were in the closed position and moved freely.

The IIC removed the top spark plugs. All of the electrodes were oval and gray. The electrodes for cylinders no. 3 and 4 were lighter gray than the others. All of the gaps were similar, and none of them exhibited mechanical damage.

The IIC removed the rocker covers. He manually rotated the crankshaft with the propeller. The vacuum pump and accessory gears rotated freely. He obtained thumb compression on all cylinders in firing order. He observed spark in firing order from the top ignition harness leads.

The IIC removed the drain plug from the carburetor and drained about 75 milliliters of a clear, light blue fluid that smelled like aviation gasoline.

The IIC installed the drain plug, rocker covers, and spark plugs. Both of the propeller blades were bent aft. A mechanic plumbed a fuel can into the fuel system. He ran the engine, which started immediately, for about 1 minute at 750 rpm. The IIC did not observe any leaks, and the engine did not hesitate, sputter, or backfire. The IIC had the mechanic shut the engine down with the mixture control due to heavy vibration from the unbalanced, damaged propeller.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	61, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	09/01/2003
Occupational Pilot:		Last Flight Review or Equivalent:	09/01/2003
Flight Time:	1800 hours (Total, all aircraft), 1300 hours (Total, this make and model), 1600 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4861F
Model/Series:	PA-28-181	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-7790068
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7126.08 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A4M
Registered Owner:	Continental Flight Center	Rated Power:	180 hp
Operator:	Continental Flight Center	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PMD, 2559 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	1553 PST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.99 inches Hg	Temperature/Dew Point:	14° C / -6° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bullhead City, AZ (IFP)	Type of Flight Plan Filed:	None
Destination:	Agua Dulce, CA (L70)	Type of Clearance:	None
Departure Time:	1445 MST	Type of Airspace:	Class G

Airport Information

Airport:	Agua Dulce Airpark (L70)	Runway Surface Type:	Unknown
Airport Elevation:	2660 ft	Runway Surface Condition:	Unknown
Runway Used:	NA	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	34.566667, -118.116667

Administrative Information

Investigator In Charge (IIC):	HOWARD D PLAGENS	Report Date:	10/31/2006
Additional Participating Persons:	Dennis McCracken; Federal Aviation Administration; Van Nuys, CA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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