Aviation Investigation Final Report

Location:	TORRANCE, California	**Accident Number:**	LAX96LA147
Date & Time:	March 29, 1996, 10:01 Local	**Registration:**	N14260
Aircraft:	Piper PA-23-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The aircraft (acft) had been inactive in outside storage since early 1989. The pilot purchased the acft & had an annual inspection performed, which was completed on 3/28/96. On 3/29/96, he & a flight instructor (CFI) took off on the 1st flight after the inspection. One engine began to run rough & lose power. The pilots turned back toward the airport, but before they reached the runway (rwy), the 2nd engine quit running. On short final, the 1st engine, which had been running rough, also quit running. There was insufficient altitude to reach the rwy; during touchdown short of the rwy, the acft was damaged. Maintenance records stated that during the annual inspection, new fuel lines were installed & both gascolators were cleaned & inspected. The recorded entry of annual inspection noted 'All fuel and oil lines checked, all accessories inspected.' During a postaccident inspection, rust colored deposits were found in both gascolators, & water was noted in the left gascolator bowl. Both gascolator screens were dark in appearance with water corrosion. Dark colored contamination was found in the left & right fuel servo inlet screens. The shaft of the left engine's left magneto had a wobble, & its drive coupling was cracked. The right engine's left magneto did not produce a spark, when tested. Also, contamination (oil & corrosion) were found inside the right engine's right magneto housing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: inadequate maintenance and inspection of the airplane; rust and water contamination in the aircraft fuel system; a worn shaft and cracked coupling in the left engine's left magneto, a malfunctioning left magneto on the right engine, and contamination (oil and corrosion) in the right magneto housing of the right engine; all of which resulted in loss of power in both engines and a subsequent forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CLIMB - TO CRUISE

Findings
1. ALL ENGINES
2. (C) MAINTENANCE - INADEQUATE - OTHER MAINTENANCE PERSONNEL
3. (C) FLUID,FUEL - CONTAMINATION,WATER
4. (C) FLUID,FUEL - CONTAMINATION,OTHER THAN WATER
5. (C) IGNITION SYSTEM,MAGNETO - WORN
6. (C) IGNITION SYSTEM,MAGNETO - CONTAMINATION
7. (C) IGNITION SYSTEM,MAGNETO - MALFUNCTION

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Factual Information

On March 29, 1996, at 1001 hours Pacific standard time, a Piper PA23-250, N14260, collided with the ground short of the runway at Torrance, California, while attempting a power-off forced landing. The forced landing was precipitated a complete loss of power in one engine during cruise, and the loss of the second engine while inbound to the airport. The aircraft was newly purchased by the left seat pilot and was engaged in a familiarization flight with a flight instructor. Visual meteorological conditions prevailed for the local area instructional flight. The aircraft sustained substantial damage. Neither the commercial pilot under training nor the flight instructor were injured. The flight originated at the Torrance airport on the day of the accident at 0930.

According to statements from the pilots, information supplied by an FAA inspector from the Long Beach Flight Standards District Office who responded to the site, and review of the maintenance records, the aircraft was completely inactive since the first months of 1989. The pilot purchased the aircraft and had an annual inspection performed, which was completed the day before. This was the first flight following the inspection.

After takeoff, the pilot and instructor flew toward the local practice area. One engine began to run rough and lose power. The aircraft was turned back toward the airport, and as the aircraft entered the traffic pattern, the second engine quit completely. On short final the first engine, which had been running rough, quit completely. The aircraft did not have sufficient altitude to make the runway and hit the ground short of the pavement inside the airport boundary fence.

The aircraft maintenance records were reviewed. The last entry in the records prior to 1996 was dated August 15, 1988. A February 22, 1996, entry during workup for the annual inspection lists, among other things, that new fuel lines were installed and both fuel system gascolators were cleaned and inspected. The March 27, 1996, entry recording the annual inspection sign off notes "All fuel and oil lines checked, all accessories inspected." Copies of the maintenance records are appended to this report.

The aircraft was inspected on April 12, 1996, by FAA airworthiness inspectors, with assistance provided by technical representatives from Piper Aircraft Corporation. According to the report of the examination, clean blue colored fuel was found in all tanks. Both left and right gascolator bowls and their associated screens were examined. The bowls exhibited a "considerable amount of rust colored deposits" with water noted in the left bowl. Both fuel gascolator screens were dark in appearance with water corrosion and contamination noted. Dark colored contamination was found on the inside of both the left and right fuel servo inlet screens.

The magnetos from both engines were examined. The shaft of the left engine's left magneto

had a "considerable amount of wobble" and the drive coupling was cracked. The right engine's left magneto did not produce a spark at any lead when tested. Oil and water contamination was found inside the right engine's right magneto housing.

Pilot Information

Certificate:	Airline transport; Flight instructor	**Age:**	34,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	May 2, 1995
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	4400 hours (Total, all aircraft), 100 hours (Total, this make and model), 4200 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N14260
Model/Series:	PA-23-250 PA-23-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	27-4821
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	March 27, 1996 Annual	**Certified Max Gross Wt.:**	5200 lbs
Time Since Last Inspection:	1 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	1914 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	TIO-540-C1A
Registered Owner:	JAMES W. ALFORD	**Rated Power:**	250 Horsepower
Operator:	CARL J. CONGDON	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	TOA ,101 ft msl	**Distance from Accident Site:**	
Observation Time:	09:57 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	15 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(TOA)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	VFR
Departure Time:	09:30 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	TORRANCE MUNI TOA	**Runway Surface Type:**	Asphalt
Airport Elevation:	101 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	11L	**IFR Approach:**	None
Runway Length/Width:	5000 ft / 150 ft	**VFR Approach/Landing:**	Forced landing;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	33.799537,-118.349372(est)

Administrative Information

Investigator In Charge (IIC):	Rich, Jeff
Additional Participating Persons:	RON FRANK; LONG BEACH , CA CHARLES R LITTLE; VERO BEACH , FL
Original Publish Date:	December 10, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29400

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