



Aviation Investigation Final Report

Location:	Penngrove, California	Accident Number:	LAX08LA142
Date & Time:	May 15, 2008, 15:10 Local	Registration:	N99180
Aircraft:	Ercoupe (Eng & Research Corp.) 415-C	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During cruise flight, the airplane's engine lost total power and the pilot executed a forced landing in an alfalfa field. During the landing roll in the 2 to 3-foot-tall grass, the airplane skidded sideways and the tail dug into the ground. The airplane's tail cone was buckled, and the right vertical stabilizer and rudder were bent. Federal Aviation Administration (FAA) inspectors found that both magnetos had frayed primary wires ("P" leads) at the magnetos, which could have been shorting out and intermittently killing the ignition system. They noted numerous additional maintenance discrepancies with the airplane; however, none of these would have contributed to a loss of engine power. According to the inspectors, the airplane's most recent annual inspection was completed about 2 months before the accident. The maintenance discrepancies found by the FAA inspectors, including the frayed "P" leads, should have been repaired during this annual inspection.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power resulting from frayed magneto "P" leads, which shorted out and killed the ignition system. Contributing to the accident was the lack of suitable terrain for the forced landing.

Findings

Personnel issues	Scheduled/routine inspection - Maintenance personnel
Environmental issues	(general) - Not specified
Aircraft	Ignition power supply - Damaged/degraded

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Landing	Collision with terr/obj (non-CFIT)

On May 15, 2008, about 1510 Pacific daylight time, an Ercoupe 415-C, N99180, sustained substantial damage during a forced landing following a loss of engine power in Penngrove, California. The sport pilot and his passenger were not injured. The airplane was being operated by the pilot under Title 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed, and no flight plan was filed. The local personal flight departed from the Petaluma Municipal Airport, Petaluma, California, about 1450.

According to Sonoma County Sheriff's Department personnel, the pilot reported that while in cruise flight he noticed the oil pressure gauge begin to fluctuate erratically. The needle on the gauge "began to bounce up and down," and seconds later, the engine "began to cut out and sputter." The pilot headed back towards Petaluma Airport. However, the engine lost total power, and the pilot executed a forced landing in an alfalfa field about 4.5 miles northwest of the airport. During the landing roll in the 2- to 3-foot-tall grass, the airplane skidded sideways and the tail dug into the ground. The airplane's tail cone was buckled, and the right vertical stabilizer and rudder were bent.

The airplane was examined by Federal Aviation Administration (FAA) inspectors. The inspectors found that both magnetos had frayed primary wires ("P" leads) at the magnetos, which could have been shorting out and intermittently killing the ignition system. They noted numerous additional maintenance discrepancies with the airplane; however, none of these would have contributed to a loss of engine power. According to the inspectors, the airplane's most recent annual inspection was completed on March 19, 2008.

Pilot Information

Certificate:	Sport Pilot	Age:	54, 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:	Sport pilot	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 1, 2007
Flight Time:	4300 hours (Total, all aircraft), 66 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ercoupe (Eng & Research Corp.)	Registration:	N99180
Model/Series:	415-C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1803
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	March 1, 2008 Annual	Certified Max Gross Wt.:	1315 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-200-A
Registered Owner:	James C. Grimes	Rated Power:	100 Horsepower
Operator:	Anthony J. Toni	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:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	35°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Petaluma, CA (O69)	Type of Flight Plan Filed:	None
Destination:	(O69)	Type of Clearance:	None
Departure Time:	14:50 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.29972,-122.666389

Administrative Information

Investigator In Charge (IIC):	Struhsaker, Georgia
Additional Participating Persons:	Richard Baker; Federal Aviation Administration; Oakland, CA
Original Publish Date:	August 28, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=68021

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