



# Aviation Investigation Final Report

<b>Location:</b>	NAPA, California	<b>Accident Number:</b>	LAX01LA166
<b>Date &amp; Time:</b>	May 6, 2001, 12:04 Local	<b>Registration:</b>	N8710P
<b>Aircraft:</b>	Piper PA-24-260	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

During a forced landing due to a loss of engine power on climb following a touch-and-go, the airplane touched down near the end of the runway, rolled across a field, struck a fence, and stopped in a ditch. The airplane departed 35 minutes earlier with main fuel tanks indicating half full and auxiliary fuel tanks indicating full. The pilot did not verify the indications of the fuel quantity gauges. In the accident type of airplane, takeoffs and landings must be performed with fuel being drawn from the main fuel tanks.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's failure to verify the fuel supply before flight, and his improper fuel management, that resulted in fuel starvation and loss of engine power during takeoff climb resulting in a forced landing and collision with ground obstacles.

## Findings

Occurrence #1: LOSS OF ENGINE POWER  
Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (C) FLUID,FUEL - STARVATION
2. (C) AIRCRAFT PREFLIGHT - IMPROPER - PILOT IN COMMAND
3. ENGINE INSTRUMENTS,FUEL QUANTITY GAGE - INACCURATE
4. (C) FUEL SUPPLY - NOT VERIFIED - PILOT IN COMMAND

5. (C) FUEL MANAGEMENT - IMPROPER - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

6. OBJECT - FENCE

## Factual Information

On May 6, 2001, at 1204 hours Pacific daylight time, a Piper PA-24-260, N8710P, sustained substantial damage when it collided with a fence during a forced landing at Napa County Airport, Napa, California. The airplane was being operated by Amphibious Adventures, Inc., under the provisions of 14 CFR Part 91, and flown by a certified flight instructor, in the right seat, who was providing instruction to a private pilot, in the left seat. The instructional flight originated from San Rafael Airport, San Rafael, California, approximately 1130. Neither the two pilots nor the two rear-seated pilot-rated passengers were injured. Visual meteorological conditions prevailed and no flight plan had been filed.

The flight instructor stated he was providing an airplane checkout to the left seat pilot. The left seat pilot was making a touch-and-go on runway 18R. After landing and taking off, the airplane's engine sputtered, and then quit between 150 and 200 feet above ground level. The flight instructor took control of the airplane and landed straight ahead on the remaining runway. The airplane touched down near the end of the runway, rolled across a field, struck a fence, and stopped in a ditch.

The flight instructor stated that during the preflight inspection, all four fuel tanks were sumped to check for fuel quality and no discrepancies were found. All four fuel tanks were checked for quantity. The two auxiliary fuel tanks were full and the two main tanks were half full, as observed by the fuel gauges. The flight instructor further stated that takeoffs and landings are to be made with fuel drawn from the main tanks only. The airplane had been flying for about 35 minutes at the time of the accident.

Upon postaccident inspection, the flight instructor noted that the fuel bladder had pulled away from the tank and may have caused the fuel gauge to give an erroneous reading.

A Federal Aviation Administration inspector examined the airplane and confirmed fuel and oil were in the engine, with no obvious discrepancies noted.

## Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	36, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical—no waivers/lim.	<b>Last FAA Medical Exam:</b>	March 11, 1999
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	July 23, 1999
<b>Flight Time:</b>	3202 hours (Total, all aircraft), 35 hours (Total, this make and model), 2886 hours (Pilot In Command, all aircraft), 48 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft)		

## Student pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8710P
<b>Model/Series:</b>	PA-24-260	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	24-4157
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	2900 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-540-D
<b>Registered Owner:</b>	Amphibious Adventures, Inc.	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	APC,33 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	11:54 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.01 inches Hg	<b>Temperature/Dew Point:</b>	24°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	San Rafael, CA (CA35)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	NAPA, CA (APC )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	11:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	NAPA COUNTY APC	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	33 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	18R	<b>IFR Approach:</b>	Unknown
<b>Runway Length/Width:</b>	5931 ft / 150 ft	<b>VFR Approach/Landing:</b>	Forced landing;Touch and go;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 None	<b>Latitude, Longitude:</b>	38.549903,-122.149108(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Baily, Frank
<b>Additional Participating Persons:</b>	Marlow Bowman; FAA Flight Standards District Office; Sacramento, CA
<b>Original Publish Date:</b>	November 28, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=52209">https://data.ntsb.gov/Docket?ProjectID=52209</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).