



# Aviation Investigation Final Report

<b>Location:</b>	VICTORVILLE, California	<b>Accident Number:</b>	LAX00LA308
<b>Date &amp; Time:</b>	August 20, 2000, 14:23 Local	<b>Registration:</b>	N601SP
<b>Aircraft:</b>	Pulsar Aircraft Corp. 100	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

During the second flight of the experimental homebuilt airplane, the engine lost power resulting in a forced landing. The airplane collided with a ravine during the forced landing roll and the landing gear collapsed. Both flights had operated with a fuel load of 10 gallons, 5 gallons in each wing fuel tank. On approach to the runway, the accident pilot experienced a loss of engine power while operating from the left fuel tank. He switched the fuel selector to the right tank but was unable to get a restart. The pilot stated that the fuel vapor return, which was plumbed into the right fuel tank, was greater than advertised. He had understood the rate to be 20/30 percent of the fuel consumption rate.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to provide enough fuel for the intended flight. Contributing to the accident was an improper fuel vapor return system.

## Findings

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

### Findings

1. (F) FUEL SYSTEM,VAPOR RETURN SYSTEM - IMPROPER
2. (C) FLUID,FUEL - INADEQUATE

3. TERRAIN CONDITION - NONE SUITABLE
4. (C) REFUELING - INADEQUATE - PILOT IN COMMAND

## Factual Information

On August 20, 2000, about 1423 hours Pacific daylight time, an experimental Pulsar 100, N601SP, was substantially damaged during an off-airport landing at Victorville, California. The private pilot/builder received minor injuries. The airplane was operated by the pilot, d.b.a. Pulsar Aircraft Corp., El Monte, California, under 14 CFR Part 91. Visual meteorological conditions prevailed for the personal flight and no flight plan was filed. The recently built airplane had been trucked from El Monte to the Southern California Logistics airport at Victorville for the purpose of performing the first test flights.

A professional pilot had flown the first flight successfully. The second flight was flown by the owner/builder. Both flights had operated from a fuel load of 10 gallons, 5 gallons each side. On approach to runway 21, the accident pilot experienced a loss of engine power while on the left fuel tank. He switched to the right tank but was unable to get a restart. The pilot was forced to perform an off-airport landing. During the landing roll, after about 300 feet, the landing gear collided with a small ravine and collapsed. The pilot stated that the fuel vapor return, which was plumbed into the right fuel tank, was greater than advertised. He had understood the rate to be 20/30 percent of the fuel consumption rate.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	49, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	July 24, 2000
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	263 hours (Total, all aircraft), 2 hours (Total, this make and model), 256 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Pulsar Aircraft Corp.	<b>Registration:</b>	N601SP
<b>Model/Series:</b>	100 100	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	601
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	July 20, 2000 Annual	<b>Certified Max Gross Wt.:</b>	1350 lbs
<b>Time Since Last Inspection:</b>	2 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-240-B7B
<b>Registered Owner:</b>	PULSAR AIRCRAFT CORPORATION	<b>Rated Power:</b>	125 Horsepower
<b>Operator:</b>	SOLLY MELYON	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	PULSAR AIRCRAFT CORPORATION	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	VCV ,2875 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	14:35 Local	<b>Direction from Accident Site:</b>	210°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	30 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	250°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	34°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	SOCAL AIRPORT , CA (VCV )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(VCV )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:00 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	34.49052,-117.360717(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Petterson, George
<b>Additional Participating Persons:</b>	TED NELSON; RIVERSIDE , CA
<b>Original Publish Date:</b>	May 18, 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=50123">https://data.ntsb.gov/Docket?ProjectID=50123</a>

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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](#).