



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	SHELTER COVE, CA	<b>Accident Number:</b>	LAX99LA122
<b>Date &amp; Time:</b>	03/18/1999, 1835 PST	<b>Registration:</b>	CFBCR
<b>Aircraft:</b>	Aero Commander 500B	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

Prior to departure the pilot believed that his airplane contained between 30 and 40 gallons of fuel, adequate for a 15-minute-long flight to another airport where he could purchase additional fuel. The pilot reported the fuel gauge registered 40 gallons, so he departed. During initial climb upon reaching an altitude of about 400 feet above the ocean, both engines simultaneously lost power. The pilot rocked the airplane's wings and experienced a 'short surge of power.' However, it lasted only a brief moment and all engine power was again totally lost. The pilot turned toward the shoreline, reduced airspeed, and ditched about 0.25 miles off shore. The overnight tide/wave action subsequently beached most of the airplane. In the pilot's report, he did not indicate having experienced any mechanical malfunctions. The Federal Aviation Administration (FAA) coordinator examined recovered portions of the airframe and engines. In pertinent part, the FAA reported finding no physical evidence of any mechanical malfunction with the examined components. However, because of the airframe damage sustained during immersion in the salt water and the subsequent destruction to components, the Safety Board was unable to document the integrity of the fuel quantity indicator system.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fuel exhaustion due to the pilot's failure to ensure that an adequate fuel supply was onboard. A contributing factor was the lack of suitable terrain for the forced landing.

## Findings

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

### Findings

1. ALL ENGINES
2. (C) FLUID,FUEL - EXHAUSTION
3. (C) FUEL SUPPLY - NOT VERIFIED - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

### Findings

4. (F) TERRAIN CONDITION - NONE SUITABLE

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Occurrence #3: DITCHING  
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

## Factual Information

On March 18, 1999, about 1835 hours Pacific standard time, a Canadian registered Aero Commander 500B, CFBCR, owned and operated by the pilot, experienced a total loss of engine power during initial climb from the Shelter Cove (uncontrolled) Airport, Shelter Cove, California. The pilot ditched the airplane in shallow Pacific Ocean water about 1.5 miles south of the airport, about 0.25 miles off shore. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight, which was performed under 14 CFR Part 91. The airplane was destroyed, and the Canadian airline transport pilot and the passenger were seriously injured. The flight originated from Shelter Cove about 1830.

The passenger verbally reported to the National Transportation Safety Board investigator that she had observed the airplane's fuel gauge prior to takeoff, and she recalled it registered a total of about 40 gallons. Because no fuel was available at Shelter Cove, the pilot intended to takeoff and proceed to Willits, about 15 minutes away.

In summary, in the pilot's completed report and during a verbal interview, he indicated that based upon his experience flying the airplane, upon departure he anticipated having between 30 and 40 gallons of fuel. During initial climb upon reaching an altitude of about 400 feet, both engines simultaneously lost power. He then rocked the airplane's wings and experienced a "short surge of power." However, it lasted only a brief moment and all engine power was again totally lost to both engines. The pilot turned toward the shoreline, reduced airspeed and ditched. The overnight tide/wave action subsequently beached most of the airplane. In the pilot's report, he did not indicate having experienced any mechanical malfunctions.

The Federal Aviation Administration (FAA) coordinator examined recovered portions of the airframe and engines. In pertinent part, the FAA reported finding no physical evidence of any mechanical malfunction with the examined components. (See the attached FAA statement for specific details.)

## Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Foreign	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Helicopter	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	01/20/1999
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5400 hours (Total, all aircraft), 32 hours (Total, this make and model), 5200 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Aero Commander	Registration:	CFBCR
Model/Series:	500B 500B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	1376-135
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	12/04/1998, 100 Hour	Certified Max Gross Wt.:	6750 lbs
Time Since Last Inspection:	26 Hours	Engines:	2 Reciprocating
Airframe Total Time:	11635 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	IO-540-B1C5
Registered Owner:	THOMAS M. FISHER	Rated Power:	290 hp
Operator:	THOMAS M. FISHER	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Bright
Observation Facility, Elevation:	OQ5, 69 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	1930 PST	Direction from Accident Site:	360°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	20 Miles
Lowest Ceiling:	Overcast / 6000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	2 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	12° C / 7° C
Precipitation and Obscuration:			
Departure Point:	(OQ5)	Type of Flight Plan Filed:	None
Destination:	WILLITS, CA (028)	Type of Clearance:	None
Departure Time:	1830 PST	Type of Airspace:	Class G

## Airport Information

Airport:	SHELTER COVE (OQ5)	Runway Surface Type:	Asphalt
Airport Elevation:	69 ft	Runway Surface Condition:	
Runway Used:	12	IFR Approach:	None
Runway Length/Width:	3400 ft / 75 ft	VFR Approach/Landing:	Forced Landing

## Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	WAYNE POLLACK	Report Date:	03/02/2001
Additional Participating Persons:	JENNIFER ADAIR; OAKLAND, 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).