



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	OCEAN CITY, MD	<b>Accident Number:</b>	BF089LA053
<b>Date &amp; Time:</b>	07/01/1989, 1500 EDT	<b>Registration:</b>	N7521F
<b>Aircraft:</b>	CHAMPION 7GCBC	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Other Work Use

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## Analysis

THE PLT REPORTED THAT HE WAS FLYING OVER WATER ALONG THE BEACHFRONT AT 200 FT MSL, WITH THE ENGINE SET AT 2250 RPM. HE HEARD A FAINT SOUND FROM THE ENGINE AND SENSED THAT THE MUFFLER WAS SEPARATING. HE UNSUCCESSFULLY TRIED TO CLIMB. THE ENGINE ONLY DEVELOPED 2200 RPM AT FULL THROTTLE. HE DROPPED THE BANNER AND SOON AFTERWARD THE ENGINE LOST POWER. THE PLT STATED THAT A BURNING SMELL FILLED THE CABIN; HOWEVER, HE DID NOT SEE ANY SMOKE. HE DITCHED THE ACFT AND USED A LIFE PRESERVER TO FLOAT ASHORE. EXAMINATION OF THE ACFT REVEALED MATERIAL FAILURE OF THE EXHAUST PIPE AT THE NUMBERS THREE AND FOUR CYLINDER EXHAUST STACK JOINT, WHERE IT CONNECTS TO THE MUFFLER. ALSO NOTED WAS SOOT AND SMOKE DISCOLORATION INSIDE THE CARBURETOR INLET CHAMBER.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF ENGINE POWER FROM EXHAUST GAS LEAKAGE INTO THE CARBURETOR INLET, CAUSING ENGINE AIR STARVATION, AND MATERIAL FAILURE OF THE EXHAUST MANIFOLD.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE - NORMAL

### Findings

1. (C) EXHAUST SYSTEM,MANIFOLD/PIPE - FAILURE,PARTIAL
2. (C) EXHAUST SYSTEM,MANIFOLD/PIPE - LEAK

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Occurrence #2: FORCED LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

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Occurrence #3: DITCHING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	24, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	06/30/1989
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	605 hours (Total, all aircraft), 195 hours (Total, this make and model), 414 hours (Pilot In Command, all aircraft), 55 hours (Last 90 days, all aircraft), 34 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CHAMPION	<b>Registration:</b>	N7521F
<b>Model/Series:</b>	7GCBC 7GCBC	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Aerobatic	<b>Serial Number:</b>	204-70
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	09/01/1988, Annual	<b>Certified Max Gross Wt.:</b>	1650 lbs
<b>Time Since Last Inspection:</b>	22 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1588 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-320-A2B
<b>Registered Owner:</b>	OCEAN AERIAL ADS, INC.	<b>Rated Power:</b>	150 hp
<b>Operator:</b>	OCEAN AERIAL ADS, INC.	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SBY, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1450 EDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 3500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27° C / 15° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	VFR
Destination:		Type of Clearance:	None
Departure Time:	1450 EDT	Type of Airspace:	Class G

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	DENNIS L JONES	Report Date:	09/30/1991
Additional Participating Persons:			
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:pubinquiry@ntsb.gov">pubinquiry@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> .		

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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](#).