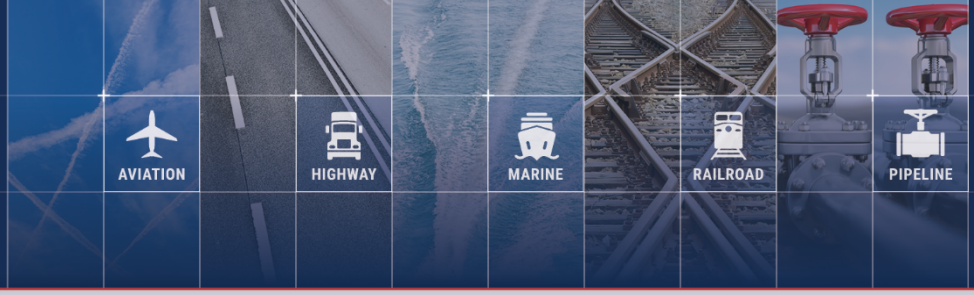

Aviation Investigation Final Report

Location:	CATALINA, California	**Accident Number:**	LAX87LA184
Date & Time:	April 19, 1987, 19:00 Local	**Registration:**	N5596P
Aircraft:	PIPER PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

JUST AFTER TAKEOFF, THE PLT STATED THAT HE HEARD A LOUD BANG. THE ACFT BEGAN TO VIBRATE SEVERELY WITH THE ENGINE DEVELOPING PARTIAL POWER. THE ACFT WOULD NOT CLIMB AND THE PLT WAS ABLE TO MAINTAIN 100 FPM DESCENT. UNABLE TO RETURN TO THE ARPT, THE PLT DITCHED THE ACFT IN THE OCEAN. INSPECTION OF THE PROPELLER BLADES EXHIBITED LEADING EDGE DAMAGE ALONG THE OUTBOARD 4-5 INCHES WITH SOME POLISHING OF THE CAMBERED SIDE. ONE BLADE WAS BENT FORWARD AND MISSING APRX 4 INCHES OF THE TIP. APRX ONE INCH FURTHER WAS A GOUGE ON THE LEADING EDGE. THE OTHER BLADE WAS BENT REARWARD. ON THE LEADING EDGE APRX 4 INCHES FROM THE TIP WAS A GOUGE AND CRACK APRX ONE INCH LONG. THE ENGINE CONTAINED A CONSIDERABLE AMOUNT OF RUST AND CORROSION FROM BEING IN CONTACT WITH SALT WATER. NO OTHER MECHANICAL FAILURE OR MALFUNCTIONS COULD BE NOTED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) PROPELLER SYSTEM/ACCESSORIES,BLADE - SEPARATION
2. (C) PROPELLER SYSTEM/ACCESSORIES,BLADE - PREVIOUS DAMAGE

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

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

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings
3. (F) OBJECT - SUBMERGED OBJECT

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	38,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	April 30, 1986
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	3500 hours (Total, all aircraft), 275 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	**Registration:**	N5596P
Model/Series:	PA-24-250 PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-663
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	December 17, 1986 Annual	**Certified Max Gross Wt.:**	2800 lbs
Time Since Last Inspection:	11 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3819 Hrs	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, not activated	**Engine Model/Series:**	O-540-A1A5
Registered Owner:	THOMAS ARMSTRONG	**Rated Power:**	250 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	LGB ,57 ft msl	**Distance from Accident Site:**	30 Nautical Miles
Observation Time:	19:00 Local	**Direction from Accident Site:**	34°
Lowest Cloud Condition:	Clear	**Visibility**	15 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	20°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CATALINA , CA (AVX)	**Type of Flight Plan Filed:**	None
Destination:	TORRANCE , CA (TOA)	**Type of Clearance:**	None
Departure Time:	18:45 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	Water
Airport Elevation:	0 ft msl	**Runway Surface Condition:**	Water-calm
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:	0 ft / 0 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	3 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 Minor, 1 None	**Latitude, Longitude:**	33.380451,-118.449806(est)

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	ALFRED RUGGERI; LONG BEACH , CA
Original Publish Date:	March 10, 1988
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=25571