



# Aviation Investigation Final Report

<b>Location:</b>	TULSA, Oklahoma	<b>Accident Number:</b>	FTW00LA222
<b>Date &amp; Time:</b>	August 1, 2000, 10:00 Local	<b>Registration:</b>	N817R
<b>Aircraft:</b>	ROMERO SEA REY	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that during cruise flight at 1,100 to 1,200 msl in the vicinity of a lake, she 'blackened out' and that she had 'no pre-warning of impending danger physical or otherwise.' The experimental amphibious airplane impacted the lake and came to rest floating upside down in the water. Review of the pilot's medical records revealed the pilot had a heart condition diagnosed as PSVT (paroxysmal supraventricular tachcardia), and for over ten years had experienced episodes of symptomatic atrial fibrillation. At the time of the accident, the pilot's experience was consistent with a transient ischemic attack (TIA or 'mini-stroke') as a result of a clot that formed in her heart. Such clots typically form during periods of atrial fibrillation and are propelled into the brain when the heart resumes beating normally again. The pilot had not complied with physician instructions regarding the use of medication. On her FAA medical certificate applications (third class and second class), the pilot had not provided a complete medical history.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of control by the pilot due to incapacitation for unknown reasons.

## Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: CRUISE

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) INCAPACITATION(LOSS OF CONSCIOUSNESS) - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

3. TERRAIN CONDITION - WATER

## Factual Information

On August 1, 2000, at 1000 central daylight time, a Romero Sea Rey, homebuilt experimental amphibious airplane, N817R, sustained substantial damage when it impacted the water at Lake Keystone, approximately 15 nautical miles west of Tulsa, Oklahoma. The airplane was owned and operated by private individuals under 14 Code of Federal Regulations Part 91. The commercial pilot, sole occupant, received serious injuries. Visual meteorological conditions prevailed for the local personal flight, and a flight plan was not filed. The flight departed the Richard Lloyd Jones Jr Airport, Tulsa, Oklahoma, at 0845.

On the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2), the pilot reported her intentions to fly over and around Lake Keystone with no intentions for landing. The pilot reported that she had retracted the landing gear following the departure from Tulsa. She remembered the airplane was configured at a power setting of 4,800 rpm and the airspeed of 75 mph, with 10 degrees of flaps extended for the flight. The airplane was at an altitude of 1,100 to 1,200 msl. The pilot further stated that "I blacked out," and that she had, "no pre-warning of impending danger physical or otherwise."

Local authorities reported that the airplane was found intact and floating upside down in water approximately 7 to 10 feet deep, and it "appeared that the main landing gear was extended."

The pilot completed dual flight training in Florida in the same make/model of aircraft. The FAA airworthiness certificate was issued for the airplane on April 4, 2000. The pilot had accumulated a total of 28 flight hours in the aircraft. The pilot held a second class medical certificate, issued December 23, 1999, at the time of the accident.

The following information was extracted by the NTSB Medical Officer from medical records maintained on the pilot by the FAA Civil Aeromedical Institute Aeromedical Certification Division and from personal medical records supplied by the pilot. The pilot was diagnosed with an abnormal heart rhythm in 1987. By May 1990, following a full cardiac workup, the pilot was placed on medication.

In August 1990, the pilot applied for a third-class medical. The pilot's physician(s) reported to the FAA that the pilot's PSVT (paroxysmal supraventricular tachycardia) was under control with medication. In a letter submitted to the FAA, one of the physicians wrote that the heart condition "would not handicap her in any way in the operation of an airplane."

The pilot was issued an FAA third-class medical certificate in November 1990, and an FAA second-class medical certificate in 1994. Each time a medical certificate was issued, the pilot's eligibility letter from the FAA stated that the pilot's operation of an aircraft was prohibited any time new symptoms or changes occurred, or if the pilot experienced side

effects or required a change in medication.

The pilot had several episodes of atrial fibrillation that were not reported to the FAA. In 1996, the pilot did not report to the FAA an episode of a sudden loss of vision in one eye, which was attributed to cardiac embolization secondary to PSVT. Following the loss of vision, she was prescribed Coumadin (a blood thinner). The pilot continued to experience episodes of paroxysmal atrial fibrillation. The use of Coumadin was not reported to the FAA.

Emergency room records, following the accident, said "she [pilot] is supposed to be on Coumadin, but she refuses to take it." The pilot demonstrated "intermittent atrial fibrillation, rapid ventricular response during the hospitalization."

In a letter to the NTSB Medical Officer dated February 22, 2001, the pilot stated "I would always have warning when an episode of atrial fibrillation would be coming on. Of course I never flew when I had any symptoms, nor did I have any symptoms the day of the accident."

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	57,Female
<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>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	December 23, 1999
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	911 hours (Total, all aircraft), 36 hours (Total, this make and model), 41 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ROMERO	<b>Registration:</b>	N817R
<b>Model/Series:</b>	SEA REY SEA REY	<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>	IDK198
<b>Landing Gear Type:</b>	Retractable - Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	June 30, 2000 Annual	<b>Certified Max Gross Wt.:</b>	1370 lbs
<b>Time Since Last Inspection:</b>	12 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	27 Hrs	<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>		<b>Engine Model/Series:</b>	912S
<b>Registered Owner:</b>	GABRIEL AND SONDR ROMERO	<b>Rated Power:</b>	100 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<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>	TUL ,638 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	08:53 Local	<b>Direction from Accident Site:</b>	90°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	7 miles
<b>Lowest Ceiling:</b>	Broken / 10000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/ None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	23°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(RVS )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	08:45 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	

## Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	35.940822,-95.869697(est)

## Administrative Information

Investigator In Charge (IIC):	Roach, Joyce
Additional Participating Persons:	RICHARD FLETCHER; OKLAHOMA CITY , OK
Original Publish Date:	July 2, 2001
Last Revision Date:	
Investigation Class:	<a href="#">Class</a>
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=49869">https://data.nts.gov/Docket?ProjectID=49869</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](#).