



# Aviation Investigation Final Report

---

<b>Location:</b>	League City, Texas	<b>Accident Number:</b>	CEN20CA348
<b>Date &amp; Time:</b>	August 17, 2020, 18:00 Local	<b>Registration:</b>	N502BK
<b>Aircraft:</b>	Progressive Aerodyne Searey	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Miscellaneous/other	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

---

## Analysis

The pilot of the amphibious airplane reported that he had made a landing on the lake surface and then performed a step-taxi into the wind. He then applied full power to takeoff and the airplane hit a wave from a passing boat. When the airplane struck the second wave from the boat, the front of the airplane went under water. The nose of the airplane was ripped off. With the engine still running, the airplane nosed over and filled with water.

In his report the pilot noted that he had not set the airplane's trim properly and he failed to apply back pressure on the controls when he hit the boat wake. He also noted that there were no pre-impact mechanical failures or malfunctions that would have precluded normal operation.

## Probable Cause and Findings

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

The pilot's failure to maintain airplane control during a water takeoff after an encounter with the wake from a boat.

## Findings

---

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Choppy surface - Response/compensation
<b>Environmental issues</b>	Choppy surface - Effect on operation

## Factual Information

### History of Flight

<b>Takeoff</b>	Miscellaneous/other (Defining event)
<b>Takeoff</b>	Part(s) separation from AC

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor; Private	<b>Age:</b>	59, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Sport pilot Unknown	<b>Last FAA Medical Exam:</b>	December 13, 2019
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	January 26, 2019
<b>Flight Time:</b>	2591 hours (Total, all aircraft), 24 hours (Total, this make and model), 2403 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Progressive Aerodyne	<b>Registration:</b>	N502BK
<b>Model/Series:</b>	Searey No Series	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2007	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	1DK247
<b>Landing Gear Type:</b>	Retractable - Tricycle; Amphibian	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	June 16, 2020 Condition	<b>Certified Max Gross Wt.:</b>	1370 lbs
<b>Time Since Last Inspection:</b>	18 Hrs	<b>Engines:</b>	Reciprocating
<b>Airframe Total Time:</b>	494 Hrs at time of accident	<b>Engine Manufacturer:</b>	ROTAX
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	912ULS
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	100 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	T41	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	29°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	League City, TX	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	La Porte, TX (T41 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<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 None	<b>Latitude, Longitude:</b>	29.550277,-95.042221

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Brannen, John
<b>Additional Participating Persons:</b>	Carl Thomas; Houston FSDO; Houston, TX
<b>Original Publish Date:</b>	February 2, 2021
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=101817">https://data.nts.gov/Docket?ProjectID=101817</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](#).