



# Aviation Investigation Final Report

<b>Location:</b>	West Palm Beach, Florida	<b>Accident Number:</b>	ERA20LA285
<b>Date &amp; Time:</b>	August 14, 2020, 17:18 Local	<b>Registration:</b>	N2994P
<b>Aircraft:</b>	Lake LA4	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fire/smoke (non-impact)	<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The rear-facing engine was mounted on top of the cabin on the amphibious airplane. During the landing roll, the pilot opened the airplane’s gull wing door and a fire erupted from the rear of the cabin, travelling forward. The pilot and passenger egressed the airplane as it rolled off the runway into a grass area, came to rest upright, and was consumed by fire. Review of maintenance logbooks revealed that an overhauled engine was installed about 5 hours before the accident, which included a new fuel supply flex hose and oil cooler; however, due to the extensive thermal damage, examination could not determine the source of the fire.

## Probable Cause and Findings

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

An on-ground engine fire, the source of which could not be determined based on the available evidence.

## Findings

<b>Not determined</b>	(general) - Unknown/Not determined
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## Factual Information

### History of Flight

Landing-landing roll	Fire/smoke (non-impact) (Defining event)
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On August 14, 2020, about 1718 eastern daylight time, a Lake LA4 amphibious airplane, N2994P, was substantially damaged when it was involved in an accident near West Palm Beach, Florida. The pilot received serious injuries and the pilot-rated passenger was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, they departed North Palm Beach County General Aviation Airport (F45), West Palm Beach, Florida for a local flight. After about 1 hour and 20 minutes, they landed back at F45. During the landing roll, he opened the airplane's gull wing door and instantly heard "a swish of air enter the cabin," followed by a flash of fire that came from the rear cabin forward. Both occupants jumped out of the airplane as it continued down the runway and into the grass. After the airplane stopped, the pilot ran back to the cockpit and turned off the master switch and fuel selector valve.

Examination of the accident site by a Federal Aviation Administration (FAA) inspector revealed that the airplane came to rest upright in the grass next to runway 14. The majority of the fuselage and engine were consumed by fire. All major components of the airplane were accounted for at the accident site.

The airplane and engine were recovered and examined by an FAA inspector and a mechanic. After reviewing the on-scene photographs and the airframe, the mechanic reported that the fire started in the engine pylon, where the electric fuel boost pump and header fuel tank are located. It is possible that the fire could have originated from the electric fuel boost pump, the header fuel tank, or the fuel supply flex hose. Review of the maintenance logbooks revealed that, 5.3 hours before the accident, an overhauled engine was installed on the airplane and the fuel flex hose and oil cooler were replaced.

## Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Flight engineer; Flight instructor	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	June 4, 2020
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 16, 2020
<b>Flight Time:</b>	19000 hours (Total, all aircraft), 250 hours (Total, this make and model), 11900 hours (Pilot In Command, all aircraft), 160 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	19, Female
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	September 14, 2017
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	215 hours (Total, all aircraft), 85 hours (Total, this make and model), 150 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Lake	<b>Registration:</b>	N2994P
<b>Model/Series:</b>	LA4 200	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1978	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	956
<b>Landing Gear Type:</b>	Tricycle; Amphibian	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 13, 2020 Annual	<b>Certified Max Gross Wt.:</b>	2600 lbs
<b>Time Since Last Inspection:</b>	6 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3172 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-260-A1B6
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	200 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>	F45,21 ft msl	<b>Distance from Accident Site:</b>	12 Nautical Miles
<b>Observation Time:</b>	17:20 Local	<b>Direction from Accident Site:</b>	146°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	140°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.96 inches Hg	<b>Temperature/Dew Point:</b>	30°C / 25°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	West Palm Beach, FL	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	West Palm Beach, FL	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	North Palm Beach County Genera F45	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	22 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	14	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4300 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor, 1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 1 None	<b>Latitude, Longitude:</b>	26.845556,-80.221664(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Wentz, Peter
<b>Additional Participating Persons:</b>	Jimmy L Mygatt; FAA FSDO; Miramar, FL
<b>Original Publish Date:</b>	September 21, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 3</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=101798">https://data.ntsb.gov/Docket?ProjectID=101798</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](#).