



Aviation Investigation Final Report

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

Not determined	(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

Certificate:	Airline transport; Commercial; Flight engineer; Flight instructor	Age:	50, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	June 4, 2020
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 16, 2020
Flight Time:	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

Certificate:	Private	Age:	19, Female
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	September 14, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	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

Aircraft Make:	Lake	Registration:	N2994P
Model/Series:	LA4 200	Aircraft Category:	Airplane
Year of Manufacture:	1978	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	956
Landing Gear Type:	Tricycle; Amphibian	Seats:	4
Date/Type of Last Inspection:	April 13, 2020 Annual	Certified Max Gross Wt.:	2600 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3172 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-260-A1B6
Registered Owner:	On file	Rated Power:	200 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	F45,21 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	17:20 Local	Direction from Accident Site:	146°
Lowest Cloud Condition:	Clear	Visibility	
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	30°C / 25°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Palm Beach, FL	Type of Flight Plan Filed:	VFR
Destination:	West Palm Beach, FL	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

Airport Information

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

Wreckage and Impact Information

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

Administrative Information

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

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](#).