



Aviation Investigation Final Report

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| Location: | Girdwood, Alaska | Accident Number: | ANC19LA051 |
| Date & Time: | September 3, 2019, 13:15 Local | Registration: | N6672L |
| Aircraft: | Lake LA-4-200 | Aircraft Damage: | Substantial |
| Defining Event: | Loss of control on ground | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

According to the pilot, the landing gear and flaps failed to retract after departure. After verifying that the hydraulic pump circuit breaker had not opened and noting that the hydraulic pressure gauge indicated zero, he was able to successfully retract both the landing gear and wing flaps using the emergency hydraulic hand pump. Upon arrival at his destination, he again used the hand pump to extend both the landing gear and wing flaps. After touchdown, he applied the wheel brakes in an effort to slow and steer the airplane, but the airplane did not slow down. The airplane exited the side of the runway, proceeded down an embankment, and came to rest on its left wing and hull sustaining substantial damage to the left wing and fuselage.

Postaccident examination of the brake and flight control systems revealed no preaccident mechanical malfunctions or anomalies that would have precluded normal operation. Although the pilot reported the failure of the airplane's landing gear and wing flap hydraulic system, it was independent of the brake system and therefore was not examined.

Probable Cause and Findings

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

The pilot's loss of directional control while landing, which resulted in a runway excursion and collision with terrain.

Findings

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| Aircraft | Directional control - Incorrect use/operation |
| Personnel issues | Aircraft control - Pilot |

Factual Information

History of Flight

Landing-landing roll

Loss of control on ground (Defining event)

On September 3, 2019, about 1315 Alaska daylight time, an amphibious Lake LA-4-200 airplane, N6672L, sustained substantial damage following a runway excursion at the Girdwood Airport (AQY), Girdwood, Alaska. The private pilot was not injured. The airplane was registered to, and operated by, a private individual, under the provisions of 14 Code of Federal Regulations Part 91 when the accident occurred. Visual meteorological conditions prevailed and no flight plan had been filed. The flight departed Merrill Field (MRI), Anchorage, Alaska at 1230 destined for AQY.

According to the pilot, after departing PAMR the landing gear and flaps failed to retract, so he verified that the hydraulic pump circuit breaker had not opened and noted that the hydraulic pressure gauge indicated zero. He utilized the emergency hydraulic hand pump and was able to successfully retract both the landing gear and wing flaps. Upon arrival at AQY, the hand pump was once again utilized to extend both the landing gear and wing flaps. After touchdown, in an effort to slow and steer the airplane, the wheel brakes were applied but did not work properly. The airplane exited the runway, proceeded down an embankment and came to rest on its left wing and hull, sustaining substantial damage to the left wing and fuselage.

According to the Lake LA-4 Owner's Manual, the airplane is equipped with a castering nose wheel, which requires differential braking for directional control. The hydraulic system is used to operate the landing gear, flaps, and longitudinal trim, and is composed of an integral pump and electric motor, pressure limit switch, accumulator, and reservoir, interconnected by necessary piping, check valves, and restrictors. The brake system is independent of the hydraulic system.

An examination of the brake and primary flight control systems revealed no preaccident mechanical malfunctions or anomalies that would have precluded normal operation.

The closest official weather observation station to the accident site was Portage Glacier (PATO), Whittier, Alaska, located about 20 miles southeast of the accident site. At 1253, a METAR was reporting, in part, wind, variable at 6 knots; visibility, 10 statute miles; clouds and sky condition, overcast clouds at 5,000 ft; temperature, 55°F; dew point, 52°F; and an altimeter setting of 30.08 inches of mercury.

Pilot Information

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| Certificate: | Private | Age: | 81, Male |
| 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: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | September 6, 2017 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | July 7, 2019 |
| Flight Time: | 1438 hours (Total, all aircraft), 756 hours (Total, this make and model), 1380 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|---|---------------------------------------|-----------------|
| Aircraft Make: | Lake | Registration: | N6672L |
| Model/Series: | LA-4-200 | Aircraft Category: | Airplane |
| Year of Manufacture: | 1970 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 435 |
| Landing Gear Type: | Tricycle; Amphibian | Seats: | |
| Date/Type of Last Inspection: | June 8, 2019 Annual | Certified Max Gross Wt.: | 2690 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 2333.3 Hrs as of last inspection | Engine Manufacturer: | Lycoming |
| ELT: | C126 installed, activated, did not aid in locating accident | Engine Model/Series: | IO-360 A1B6 |
| Registered Owner: | On file | Rated Power: | 200 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | | Distance from Accident Site: | |
| Observation Time: | 19:53 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | | Visibility | 10 miles |
| Lowest Ceiling: | Overcast / 5000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.07 inches Hg | Temperature/Dew Point: | 13°C / 11°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Anchorage, AK (MRI) | Type of Flight Plan Filed: | None |
| Destination: | Girdwood, AK (AQY) | Type of Clearance: | None |
| Departure Time: | | Type of Airspace: | Class G |

Airport Information

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|-----------------------------|-----------------|----------------------------------|---------------------------|
| Airport: | Girdwood AQY | Runway Surface Type: | Gravel |
| Airport Elevation: | 164 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 20 | IFR Approach: | None |
| Runway Length/Width: | 2095 ft / 60 ft | VFR Approach/Landing: | Full stop;Traffic pattern |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|-----------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 60.968887,-149.119445 |

Administrative Information

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| Investigator In Charge (IIC): | Banning, David |
| Additional Participating Persons: | William Lowen; Federal Aviation Administration ; Anchorage , AK |
| Original Publish Date: | November 19, 2020 |
| Last Revision Date: | |
| Investigation Class: | Class 3 |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=100243 |

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](#).