# Aviation Investigation Final Report

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| **Location:** | ANCHORAGE, Alaska | **Accident Number:** | ANC99LA066 |
| **Date & Time:** | May 29, 1999, 15:20 Local | **Registration:** | N30CC |
| **Aircraft:** | de Havilland DHC 2 MK III | **Aircraft Damage:** | Substantial |
| **Defining Event:** | | **Injuries:** | 4 None |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

The pilot-in-command, a certificated flight instructor, was providing turbine transition instruction to the second pilot. The accident airplane had been modified by the installation of a Pratt & Whitney PT6 turbine engine. The instructor pilot stated that the propeller governor control was causing 'the engine to surge.' He added that just prior to touchdown on runway 31, while the second pilot was manipulating the controls, the engine again surged, and the airplane landed hard. In the pilot-in-command's written report, and during a later telephone conversation, he reported that during the previous landings, the second pilot failed to 'carry power so as not to land hard again.' The first pilot said that he then instructed the second pilot as to the differences of a turbine engine vs. a piston engine. He wrote: 'I watched very closely until we were over the runway, and once again, quick as a cat, we stalled and hit hard.' The airplane's fuselage sustained substantial damage.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The certificated flight instructor's inadequate supervision of the duel student. Factors associated with the accident were the student's inadvertent stall, and a surging turboshaft engine.

### Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
1. (F) STALL - INADVERTENT - DUAL STUDENT
2. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)
3. (F) TURBOSHAFT ENGINE - SURGE

## Factual Information

On May 29, 1999, about 1520 Alaska daylight time, an amphibious float equipped DeHavilland DHC-2 airplane, N30CC, sustained substantial damage while landing at the Lake Hood airstrip, Anchorage, Alaska. The airplane was being operated as a visual flight rules (VFR) instructional flight under Title 14, CFR Part 91, when the accident occurred. The first pilot, seated in the right seat, the second pilot, seated in the left seat, and the two passengers aboard were not injured. Visual meteorological conditions prevailed, and VFR company flight following procedures were in effect.

During a telephone conversation with the National Transportation Safety Board investigator-in-charge on May 29, the first pilot, a certificated flight instructor, reported that he was providing turbine transition instruction to the second pilot. The accident airplane has been modified by the installation of a Pratt & Whitney PT6 turbine engine. The first pilot stated that during a previous flight that day the propeller governor control was causing "the engine to surge." The airplane returned to a maintenance facility where repairs were performed, and the airplane was returned to service. He added that about 45 minutes into the second flight, the engine again began to surge, and both pilots elected to once again return to the maintenance facility. The first pilot reported that just prior to touchdown on runway 31, while the second pilot was manipulating the controls, the engine again surged, and the airplane landed hard.

In the Pilot/Operator report (NTSB form 6120.1/2) filed by the pilot-in-command, and during a later telephone conversation, he reported that during the previous landings, the second pilot failed to "carry power so as not to land hard again." The first pilot said that he then instructed the second pilot as to the differences of a turbine engine vs. a piston engine. He wrote: "I watched very closely until we were over the runway, and once again, quick as a cat, we stalled and hit hard."

The airplane's fuselage sustained substantial damage.

Wind conditions at the time of the accident were reported to be 120 degrees at 4 knots.

## Pilot Information

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| **Certificate:** | Airline transport; Flight instructor | **Age:** | 59,Male |
| **Airplane Rating(s):** | Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea | **Seat Occupied:** | Right |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | Airplane | **Second Pilot Present:** | Yes |
| **Instructor Rating(s):** | Airplane multi-engine; Airplane single-engine; Instrument airplane | **Toxicology Performed:** | No |
| **Medical Certification:** | Class 3 Valid Medical--w/ waivers/lim | **Last FAA Medical Exam:** | May 7, 1998 |
| **Occupational Pilot:** | Yes | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 24000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 2300 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | de Havilland | **Registration:** | N30CC |
| **Model/Series:** | DHC 2 MK III DHC 2 MK I | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | 1566TB4 |
| **Landing Gear Type:** | Amphibian | **Seats:** | 8 |
| **Date/Type of Last Inspection:** | May 28, 1999 Annual | **Certified Max Gross Wt.:** | 6000 lbs |
| **Time Since Last Inspection:** | 2 Hrs | **Engines:** | 1 Turbo prop |
| **Airframe Total Time:** | | **Engine Manufacturer:** | P&W |
| **ELT:** | Installed | **Engine Model/Series:** | PT6A-6A |
| **Registered Owner:** | CHARLES E. COLE | **Rated Power:** | 550 Horsepower |
| **Operator:** | WILLIAM A. SEGO | **Operating Certificate(s) Held:** | None |
| **Operator Does Business As:** | | **Operator Designator Code:** | |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | PAL ,73 ft msl | **Distance from Accident Site:** | |
| **Observation Time:** | 14:53 Local | **Direction from Accident Site:** | |
| **Lowest Cloud Condition:** | Unknown | **Visibility** | 10 miles |
| **Lowest Ceiling:** | Broken / 5500 ft AGL | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 4 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 120° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29 inches Hg | **Temperature/Dew Point:** | 9°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | (Z41 ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | | **Type of Clearance:** | None |
| **Departure Time:** | 14:20 Local | **Type of Airspace:** | Class D |

## Airport Information

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| **Airport:** | LAKE HOOD STRIP Z41 | **Runway Surface Type:** | Gravel |
| **Airport Elevation:** | 73 ft msl | **Runway Surface Condition:** | Wet |
| **Runway Used:** | 31 | **IFR Approach:** | None |
| **Runway Length/Width:** | 2200 ft / 70 ft | **VFR Approach/Landing:** | Full stop |

## Wreckage and Impact Information

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| **Crew Injuries:** | 2 None | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | 2 None | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 4 None | **Latitude, Longitude:** | 61.160934,-149.989608(est) |

## Administrative Information

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| **Investigator In Charge (IIC):** | Johnson, Clinton |
| **Additional Participating Persons:** | LARRY K PETERSON (FAA); ANCHORAGE , AK |
| **Original Publish Date:** | June 21, 2000 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=46529 |