# Aviation Investigation Final Report

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| **Location:** | Port Townsend, Washington | **Accident Number:** | SEA06LA112 |
| **Date & Time:** | June 1, 2006, 08:30 Local | **Registration:** | N606KA |
| **Aircraft:** | de Havilland DHC-3T | **Aircraft Damage:** | Substantial |
| **Defining Event:** | | **Injuries:** | 11 None |
| **Flight Conducted Under:** | Part 135: Air taxi & commuter - Scheduled | | |

## Analysis

The airplane was on a company activated visual flight rules (VFR) flight plan over ocean water. The pilot said the weather conditions deteriorated with a lowering ceiling and visibility. He said that the water condition was glassy smooth with no visual definition, and this condition made it increasingly difficult to be sure he was maintaining forward visibility. He began to turn back to better VFR conditions, but conditions worsened; he believed that he inadvertently entered a fog bank. He elected to perform a precautionary landing on the water. He said that with no visual definition, he misjudged his altitude, and landed hard. The airplane's fuselage was bent/deformed, the fuselage skin was wrinkled, and the dorsal stabilizer was bent/wrinkled. At 0655, the weather conditions approximately 14 nautical miles north of the precautionary landing site were: wind calm; visibility 7 statute miles with shallow fog; cloud condition 900 feet scattered, 2,000 feet scattered, 5,000 feet broken and 20,000 feet broken; temperature 55 degrees Fahrenheit; dew point 54 degrees Fahrenheit; altimeter setting 29.95 inches. The pilot reported that at the time of the attempted landing, the visibility was zero, the wind condition was zero, and the ceiling was zero.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's misjudgment of the airplane's height above the water during a precautionary landing which resulted in a hard landing. Contributing factors were glassy water conditions, fog, and the pilot's inadvertent VFR flight into IMC.

## Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings
1. (F) WEATHER CONDITION - FOG
2. (F) VFR FLIGHT INTO IMC - INADVERTENT - PILOT IN COMMAND
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Occurrence #2: HARD LANDING
Phase of Operation: LANDING

Findings
3. PRECAUTIONARY LANDING - PERFORMED - PILOT IN COMMAND
4. (F) TERRAIN CONDITION - WATER,GLASSY
5. (C) DISTANCE/ALTITUDE - MISJUDGED - PILOT IN COMMAND

## Factual Information

On June 1, 2006, at approximately 0830 Pacific daylight time, a de Havilland DHC-3T (Otter) floatplane, N606KA, was substantially damaged during a precautionary landing in the Puget Sound near Port Townsend, Washington. The airline transport pilot and his 10 passengers were not injured. The flight was being operated by Kenmore Air Harbor, Seattle, Washington, under Title 14 CFR Part 135. Instrument meteorological conditions prevailed for the on-demand air taxi, international flight which had originated approximately 20 minutes before the accident from Kenmore Air Harbor Seaplane Base (W55), Seattle, Washington. The flight was being flown on a company activated visual flight rules (VFR) flight plan with a destination of Victoria, British Columbia.

The pilot said that as he approached Port Townsend, Washington, weather conditions deteriorated with a lowering ceiling and visibility. He said that the water condition was glassy smooth with no visual definition. He said "this condition made it increasingly difficult to be sure I was maintaining forward visibility." The pilot said that he began to turn back to better VFR conditions, but conditions worsened; he believes that he inadvertently entered a fog bank. He elected to perform a precautionary landing on the water. He said that with no visual definition, he misjudged his altitude, and landed hard. He was unsure of the airplane's structural condition, so he taxied it to Port Townsend, Washington. The airplane's fuselage was bent/deformed, the fuselage skin was wrinkled, and the dorsal stabilizer was bent/wrinkled.

At 0655, the weather conditions at Whidbey Island Naval Air Station, Washington, approximately 14 nautical miles north of the precautionary landing site were: wind calm; visibility 7 statue miles with shallow fog; cloud condition 900 feet scattered, 2,000 feet scattered, 5,000 feet broken and 20,000 feet broken; temperature 55 degrees Fahrenheit; dew point 54 degrees Fahrenheit; altimeter setting 29.95 inches. The pilot reported that at the time of the attempted landing, the visibility was zero, the wind condition was zero, and the ceiling was zero.

## Pilot Information

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| **Certificate:** | Airline transport; Commercial | **Age:** | 58,Male |
| **Airplane Rating(s):** | Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea | **Seat Occupied:** | Left |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | Airplane | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | No |
| **Medical Certification:** | Class 2 With waivers/limitations | **Last FAA Medical Exam:** | October 1, 2005 |
| **Occupational Pilot:** | Yes | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 26920 hours (Total, all aircraft), 5275 hours (Total, this make and model), 26420 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 75 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft) | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | de Havilland | **Registration:** | N606KA |
| **Model/Series:** | DHC-3T | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | 37 |
| **Landing Gear Type:** | Float | **Seats:** | 11 |
| **Date/Type of Last Inspection:** | May 1, 2006 Annual | **Certified Max Gross Wt.:** | 8367 lbs |
| **Time Since Last Inspection:** | 65 Hrs | **Engines:** | 1 Turbo prop |
| **Airframe Total Time:** | 10564 Hrs at time of accident | **Engine Manufacturer:** | Pratt & Whitney Canada |
| **ELT:** | Installed, activated, did not aid in locating accident | **Engine Model/Series:** | PT6-135 |
| **Registered Owner:** | Kenmore Air Harbor, Inc. | **Rated Power:** | 750 Horsepower |
| **Operator:** | | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Instrument (IMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | | **Distance from Accident Site:** | |
| **Observation Time:** | | **Direction from Accident Site:** | |
| **Lowest Cloud Condition:** | 0 ft AGL | **Visibility** | 0 miles |
| **Lowest Ceiling:** | Indefinite (V V) / 0 ft AGL | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 0 knots / 0 knots | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 0° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29.92 inches Hg | **Temperature/Dew Point:** | 14°C / 12°C |
| **Precipitation and Obscuration:** | Moderate - None - Fog | | |
| **Departure Point:** | Seattle, WA (W55 ) | **Type of Flight Plan Filed:** | VFR |
| **Destination:** | (CYWH) | **Type of Clearance:** | VFR |
| **Departure Time:** | 08:10 Local | **Type of Airspace:** | |

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 None | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | 10 None | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 11 None | **Latitude, Longitude:** | 48.196945,-123.326385 |

## Administrative Information

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| **Investigator In Charge (IIC):** | Struhsaker, James |
| **Additional Participating Persons:** | John Davis; FAA FSDO; Seattle, WA |
| **Original Publish Date:** | January 31, 2007 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=63954 |