



National Transportation Safety Board Aviation Accident Final Report

Location:	Lopez Island, WA	Accident Number:	WPR16LA189
Date & Time:	09/30/2016, 0837 PDT	Registration:	N6781L
Aircraft:	DEHAVILLAND BEAVER DHC 2 MK.1	Aircraft Damage:	Substantial
Defining Event:	VFR encounter with IMC	Injuries:	2 Serious, 2 Minor
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Scheduled		

Analysis

While maneuvering at low altitude for a water landing, the commercial pilot of the float-equipped airplane encountered low visibility due to ground fog. The pilot initiated a go-around, but the airplane impacted the water, bounced, and impacted the water a second time before coming to rest upright. The airplane subsequently sank and was not recovered. The pilot reported that there were no mechanical anomalies with the airplane that would have precluded normal operation. The operator further reported that other company pilots who were flying on the day of the accident stated that the low visibility conditions were easily avoided by a slight course deviation.

Probable Cause and Findings

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

The pilot's decision to land in an area of low visibility and ground fog, which resulted in collision with water.

Findings

Aircraft	Altitude - Not attained/maintained (Cause)
Personnel issues	Decision making/judgment - Pilot (Cause) Monitoring environment - Pilot (Cause)
Environmental issues	Low visibility - Effect on operation (Cause)

Factual Information

On September 30, 2016, at 0837 Pacific daylight time (PDT), a Dehavilland, Beaver DHC-2 MK1, N6781L, unintentionally impacted the water near Lopez Island, Washington, while descending through a break in a cloud layer. The airplane was registered to and operated by Kenmore Air Seaplanes under the provisions of 14 *Code of Federal Regulations* Part 135. The commercial pilot, and one passenger sustained minor injuries, two passengers sustained serious injuries. The airplane sustained substantial damage during the accident sequence, and subsequently sunk. The scheduled commuter flight departed Kenmore Air Harbor Seaplane Base (W55), Seattle, Washington, about 0800, with a planned destination of Fisherman Bay (81W), Washington. Visual and instrument meteorological conditions prevailed along the route of flight, and a company visual flight rules (VFR) flight plan had been filed.

In a statement submitted to the NTSB investigator-in-charge, the pilot reported that he departed W55 with three passengers, and that his first planned stop was 81W. As he initiated his descent just south of Cattle Pass at 2,000 ft, he observed breaks in the undercast north of the pass. The pilot stated that he could see the water at all times during the descent, and that he could see the destination "all the way down." The pilot further stated that he then completed the landing checklist, except for flaps, and at a certain point, before turning final to land north at 81W, he lost sight of the water. The pilot reported that when he realized the approach was no longer practical, he added go-around power, raised the nose, and initiated a go-around. Shortly thereafter, the airplane impacted the water, bounced, then impacted the water again. The pilot stated that after the airplane came to rest in an upright position, water began to enter the [cabin/cockpit areas]. The pilot mentioned that after he and his three passengers had successfully egressed the airplane and been in the water from between 35 to 45 minutes, they were rescued by a motor trawler and a local Sheriff's boat. The airplane sank and was not recovered.

The pilot reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

Air Airmen's Meteorological Information (AIRMET) SIERRA advisory for instrument flight rules (IFR) conditions, which was applicable for the accident site, was issued at 0745 PDT. It advised of ceilings below 1,000 ft above ground level (agl), visibility below 3 statute miles, mist and fog.

At 0753, the Automated Surface Observing System (ASOS) located at Friday Harbor Airport (FHR), Friday Harbor Washington, about 3.5 nm northwest of the accident location, reported wind calm, visibility 6 miles, mist, ceiling overcast at 300 ft agl, temperature 10° C, dew point 8° C, and an altimeter setting of 30.03 inches of mercury.

At 0853, the FHR weather reporting facility indicated wind 080° at 3 knots, visibility 9 miles, ceiling overcast 400 ft agl, temperature 10° C, dew point 8° C, and an altimeter setting of 30.06 inches of mercury. (Refer to the NTSB's Meteorological Specialist's report, which is appended to the docket for this accident.)

In the RECOMMENDATION section of the NTSB 6120.1 report, the operator opined that the accident occurred because of the pilot's decision to operate in an area in which there was at least some ground fog present in some areas, including at the accident site itself. According to other [company] pilots flying that morning, this area was easily avoidable with a slight flight path deviation to the west, where ceiling and visibility remained unrestricted. The operator further stated that any recommendations for prevention, therefore, must address the pilot's decision to operate where he did. Additionally, the operator referenced the Federal Aviation Administration's Risk Management Handbook (FAA-H-8083-2), stating, "...this addresses this need well, and would be the template followed for training."

History of Flight

Enroute-descent	VFR encounter with IMC (Defining event)
Approach-VFR go-around	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	69, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
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:	10/20/2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	04/11/2016
Flight Time:	25000 hours (Total, all aircraft), 1630 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 202 hours (Last 90 days, all aircraft), 51 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	DEHAVILLAND	Registration:	N6781L
Model/Series:	BEAVER DHC 2 MK.1 MARKI	Aircraft Category:	Airplane
Year of Manufacture:	1953	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	788
Landing Gear Type:	Float;	Seats:	8
Date/Type of Last Inspection:	09/28/2016, 100 Hour	Certified Max Gross Wt.:	5600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7395.1 Hours as of last inspection	Engine Manufacturer:	Pratt & Whitney
ELT:	C126 installed, activated, aided in locating accident	Engine Model/Series:	R985AN/14B
Registered Owner:	KENMORE AIR HARBOR INC	Rated Power:	450 hp
Operator:	KENMORE AIR HARBOR INC	Operating Certificate(s) Held:	Commuter Air Carrier (135)
Operator Does Business As:		Operator Designator Code:	GJRA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KFHR, 109 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	0835 PDT	Direction from Accident Site:	321°
Lowest Cloud Condition:	Thin Overcast / 400 ft agl	Visibility	7 Miles
Lowest Ceiling:	Overcast / 400 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	10° C / 8° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SEATTLE, WA (W55)	Type of Flight Plan Filed:	None
Destination:	LOPEZ, WA (81W)	Type of Clearance:	None
Departure Time:	0800 PDT	Type of Airspace:	Class G

Airport Information

Airport:	FISHERMANS BAY (81W)	Runway Surface Type:	Water
Airport Elevation:	0 ft	Runway Surface Condition:	Water--calm
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Valley/Terrain Following; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	2 Serious, 1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious, 2 Minor	Latitude, Longitude:	48.464167, -122.953333 (est)

Administrative Information

Investigator In Charge (IIC):	Patrick H Jones	Report Date:	07/05/2018
Additional Participating Persons:	Curtis R Johnson; Federal Aviation Administration; Renton, WA		
Publish Date:	07/05/2018		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94049		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).