



Aviation Investigation Final Report

Location:	KENMORE, Washington	Accident Number:	SEA00LA083
Date & Time:	May 3, 2000, 10:50 Local	Registration:	N8523
Aircraft:	de Havilland U-6A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was landing to the south on Lake Washington in between a buoy and a yacht. The yacht was making approximately 2 to 3 knots speed heading south. Winds were out of the south at 13 knots, gusting to 17 knots resulting in choppy water surface conditions. As the floatplane touched down, the yacht powered up creating a large bow wave. The aircraft contacted the wave during its southerly rollout and while decelerating in a nose high attitude. The encounter resulted in the aircraft's right wing contacting the water. Forward visibility was restricted as the nose of the aircraft was raised during the landing on water.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain control of the aircraft during the landing roll. Contributing factors were the power wave created by the nearby yacht, the rough water conditions, and the pilot's loss of visual contact with the wave during the rollout.

Findings

Occurrence #1: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID
Phase of Operation: LANDING - ROLL

Findings

- (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - LARGE WAVE/SWELL

2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. (F) VISUAL/AURAL DETECTION - PILOT IN COMMAND

Factual Information

On May 3, 2000, approximately 1050 Pacific daylight time, a DeHavilland U-6A Beaver floatplane, N8523, registered to and being flown by a commercial pilot, was substantially damaged when the aircraft's right wingtip contacted the water during the landing roll at Kenmore Air Harbor seaplane base (north Lake Washington), Kenmore, Washington. The pilot and passenger were uninjured. Visual meteorological conditions prevailed and no flight plan had been filed. Winds were out of the south at 13 knots, gusting to 17 knots. The flight, which was personal, was operated under 14CFR91, and originated from Anacortes, Washington, approximately 1010.

The pilot reported that he was landing to the south on Lake Washington in between a buoy and a yacht. The yacht was making approximately 2 to 3 knots speed heading south. He further stated that just as he "arrived at the predetermined touch down point, the yacht at almost the same moment applied full power, creating a large bow wave and instead of passing over the anticipated 4 to 6 inch wave, my left float hit a 2 to 3 foot wave, raising the left float and rocking the aircraft, causing my right wing to clip the bow wave. At the same moment I applied power, bringing the aircraft to a normal position."

Additionally, the pilot related that "when rotating a Beaver just prior to touch down forward visibility is cut off for a period of approximately 30 seconds until the aircraft settles in the water. At that time the pilot's visibility is limited to the left side and 90 degrees to the right. Therefore the power (bow) wave was not visible until approximately 5 seconds prior to impact." The aircraft remained upright and taxied to Kenmore Air Harbor. Post-crash examination revealed extensive skin wrinkling on the right wing surface.

A commercial pilot with DeHavilland Beaver experience reported that the water at the north end of Lake Washington was choppy the day of the accident due to the strong southerly winds. He also confirmed that when landing in such circumstances, and once the pilot has engaged the floats in the water, back pressure on the control column is applied to decelerate the aircraft as quickly as possible. This raises the nose of the aircraft and further obstructs forward vision, as the accident pilot described earlier.

Pilot Information

Certificate:	Commercial	Age:	70, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	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 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 29, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	5000 hours (Total, all aircraft), 70 hours (Total, this make and model), 3000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	de Havilland	Registration:	N8523
Model/Series:	U-6A U-6A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	57-6161
Landing Gear Type:	Float	Seats:	8
Date/Type of Last Inspection:	June 18, 1999 Annual	Certified Max Gross Wt.:	5100 lbs
Time Since Last Inspection:	21 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	R985-AN39A
Registered Owner:	YEAGER, PHILIP, J.	Rated Power:	450 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BFI, 18 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	10:53 Local	Direction from Accident Site:	167°
Lowest Cloud Condition:	Scattered / 6500 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 9000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	13 knots / 17 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	11°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ANACORTES , WA (WA03)	Type of Flight Plan Filed:	None
Destination:	(WA57)	Type of Clearance:	None
Departure Time:	10:10 Local	Type of Airspace:	Class G

Airport Information

Airport:	KENMORE AIR HARBOUR SPB WA57	Runway Surface Type:	Water
Airport Elevation:	14 ft msl	Runway Surface Condition:	Rough
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	47.750534,-122.240257(est)

Administrative Information

Investigator In Charge (IIC):	Mccreary, Steven
Additional Participating Persons:	DAVID WUNSCH; RENTON , WA
Original Publish Date:	May 9, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=49167

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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](#).