



National Transportation Safety Board Aviation Accident Final Report

Location:	Juneau, AK	Accident Number:	ANC06LA103
Date & Time:	07/31/2006, 1130 AKD	Registration:	N93356
Aircraft:	de Havilland DHC-3	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 3 Minor, 3 None

Flight Conducted Under: Part 135: Air Taxi & Commuter - Non-scheduled

Analysis

The commercial pilot was transporting passengers in a float-equipped airplane under Title 14, CFR Part 135, when it collided with the surface of the water during landing. The pilot reported that he was in a descending right turn in preparation for landing, and was looking for shoreline dock as a landing reference. Prior to seeing the dock, the airplane struck the water. The left rear seat passenger said he wasn't aware the airplane was landing, and thought they were still making the approach when the airplane impacted the water. A witness who watched the accident from the ground, said there was fog and low clouds in the area, and that surface visibility was about 1 mile. The witness said as the airplane descended, he thought, "If he doesn't pull up, he's going to hit the water." The witness said the right float and wing hit the water in a right turn, and that he never heard the airplane reduce power, or saw the airplane level off before impact. The pilot did not report any mechanical anomalies with the airplane prior to the accident, and said in his written statement to the NTSB that glassy water, and flat-light conditions made it difficult to discern the surface of the water. The airplane received structural damage to the wings and fuselage.

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 altitude/clearance during approach, which resulted in the airplane impacting the surface of the water. Factors associated with the accident were the flat-light and glassy water conditions, which affected the pilot's ability to see the surface of the water.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: APPROACH - VFR PATTERN - BASE LEG/BASE TO FINAL

Findings

1. (F) TERRAIN CONDITION - WATER, GLASSY
2. (F) LIGHT CONDITION - OTHER
3. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
4. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND

Factual Information

On July 31, 2006, about 1130 Alaska daylight time, a float-equipped, de Havilland DHC-3 airplane, N93356, sustained substantial damage when it collided with the surface of the water during landing at Berners Bay, about 60 miles north-northwest of Juneau, Alaska. The airplane was being operated by Ward Air, Inc., Juneau, as a visual flight rules (VFR) on-demand passenger flight under Title 14, CFR Part 135 when the accident occurred. The pilot and two passengers were not injured. Three additional passengers received minor injuries, and one passenger was seriously injured. Visual meteorological conditions prevailed, and company flight following procedures were in effect. The airplane departed Juneau about 1110.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on August 1, the director of operations for the operator said the float-equipped airplane was delivering passengers to Berners Bay. He said the pilot told him he had made a hard landing, and that one of the floats had separated from the airplane. He said the pilot told him the fuselage had filled with water, but the passengers escaped with only minor injuries.

On August 3, the left rear seat passenger told the NTSB IIC in a telephone interview that he wasn't aware the airplane was landing, and that the airplane was in a nose low, right-banked turn when it struck the water. He stated he was used to flying in float planes, although he had never flown in the same type as the accident airplane, and expected to see the pilot "pump down the flaps, slow down, and level off prior to landing." He reported he thought they were still making the approach. He said his leg and hand were broken during the accident, and that he felt his injuries were due to being struck by unrestrained cargo stacked inside the aft fuselage door. He indicated the fuselage filled with water from the front, and passengers had to scramble over cargo piled at the aft doorway to escape.

During a telephone conversation with the IIC on August 8, a witness who watched the accident from the ground, said there was fog and low clouds in the area, and that the surface visibility was about 1 mile at the time of the accident. He said he watched the accident airplane circle overhead, and presumed he was waiting for an airplane already at the dock to leave and make room. The witness said as the airplane circled, it descended, and he said he thought to himself, "If he doesn't pull up he's going to hit the water." The witness said the right float and wing hit the water in a right-banked turn, and that he never heard the airplane reduce power, or saw the airplane level off before the impact.

In a written statement dated August 2, the pilot wrote that at the time of the accident, there was a 2500 foot overcast with 5 miles visibility in rain, and that the rains had turned the glassy water in the cove a milky color. He also reported flat-light conditions. He reported that he was in a descending right base leg turn looking for the dock as a reference to roll out on final. He wrote that before he was able to see the dock, the airplane impacted the water.

Pilot Information

Certificate:	Commercial	Age:	34, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	04/01/2006
Occupational Pilot:		Last Flight Review or Equivalent:	05/01/2006
Flight Time:	7200 hours (Total, all aircraft), 100 hours (Total, this make and model), 7100 hours (Pilot In Command, all aircraft), 300 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	de Havilland	Registration:	N93356
Model/Series:	DHC-3	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	144
Landing Gear Type:	Float	Seats:	11
Date/Type of Last Inspection:	07/01/2006, 100 Hour	Certified Max Gross Wt.:	8000 lbs
Time Since Last Inspection:	1 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	20040 Hours as of last inspection	Engine Manufacturer:	Honeywell
ELT:	Installed, not activated	Engine Model/Series:	TPE-331-10
Registered Owner:	RED Leasing	Rated Power:	900 hp
Operator:	WARD AIR INC	Operating Certificate(s) Held:	Commuter Air Carrier (135); On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	HXRA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	5 Miles
Lowest Ceiling:	Overcast / 2500 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	14° C
Precipitation and Obscuration:	Light - Rain		
Departure Point:	Juneau, AK (5Z1)	Type of Flight Plan Filed:	Company VFR
Destination:	Berners Bay, AK	Type of Clearance:	None
Departure Time:	1110 ADT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious, 3 Minor, 2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 3 Minor, 3 None	Latitude, Longitude:	58.791111, -134.982500

Administrative Information

Investigator In Charge (IIC):	Lawrence R Lewis	Report Date:	01/31/2007
Additional Participating Persons:	Richard Bochynski; Juneau, FSDO-05; Juneau, AK		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).