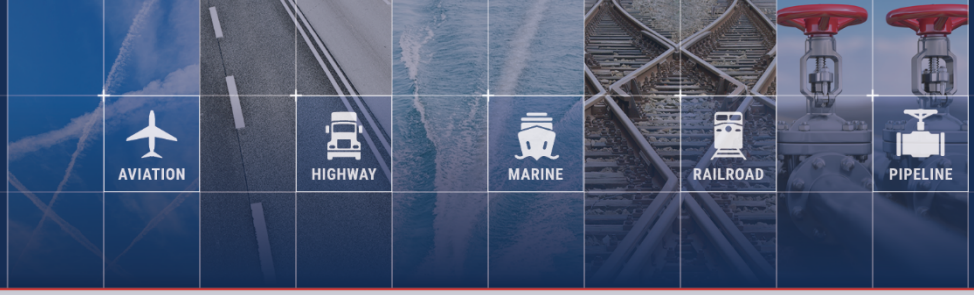

Aviation Investigation Final Report

Location:	ILIAMNA, Alaska	**Accident Number:**	ANC99LA124
Date & Time:	August 25, 1999, 06:20 Local	**Registration:**	N930TG
Aircraft:	de Havilland DHC-2	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	5 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The certificated commercial pilot was attempting to takeoff from a lake with 2 feet tall, rolling swells. The pilot said that during the takeoff run, before a safe flying airspeed was attained, the airplane floats struck a large wave, and the airplane lifted off the water prematurely. He said that before he could react, the left wing stalled, and the airplane collided with the water. During the collision, the floats were torn off the airplane, and the airplane sank. The airplane sustained substantial damage to the fuselage, empennage, and wings. The closest official weather observation station is Iliamna. On August 25, 1999, at 0553, an Aviation Routine Weather Report (METAR) was reporting in part: Wind, 259 degrees (magnetic) at 7 knots; visibility, 10 statute miles; clouds, 7,500 feet broken; temperature, 51 degrees F; dew point, 46 degrees F; altimeter, 29.52 inHg. Official civil twilight for Iliamna was at 0610.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's selection of an unsuitable takeoff area, and an inadvertent stall. Factors associated with the accident were large wave/swells, and low light conditions (dawn).

Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND
2. (F) TERRAIN CONDITION - LARGE WAVE/SWELL
3. (F) LIGHT CONDITION - DAWN

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
4. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Factual Information

On August 25, 1999, about 0620 Alaska daylight time, a float equipped DeHavilland DHC-2 airplane, N930TG, sustained substantial damage during takeoff from a remote lake, about 2 miles east of Iliamna, Alaska, at position 59 degrees 45 minutes north latitude, 154 degrees 22 minutes west longitude. The airplane was being operated as a visual flight rules (VFR) flight under Title 14, CFR Part 135, when the accident occurred. The pilot/owner was operating the airplane for his fishing guide business, Iliaska Lodge, Inc., of Iliamna. The certificated commercial pilot, and four passengers aboard, were not injured. Visual meteorological conditions prevailed, and company flight following procedures were in effect.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge on August 25, the pilot related that prior to his takeoff attempt, he noted that the lake surface had 2 feet tall, rolling swells. He said that during the takeoff run, before a safe flying airspeed was attained, the airplane floats struck a large wave, and the airplane lifted off the water prematurely. He said that before he could react, the left wing stalled, and the airplane collided with the water. During the collision, the floats were torn off the airplane, and the airplane sank.

The airplane sustained substantial damage to the fuselage, empennage, and wings.

In the Pilot/Operator report (NTSB form 6120.1/2) filed by the pilot, he wrote: "...I think the left flap and aileron partially retracted while the airplane was still on the step, prior to takeoff. Perhaps striking the larger swell caused the flap to retract."

A Federal Aviation Administration (FAA) operations inspector, Anchorage Flight Standards District Office, traveled to the accident scene, and was present while the airplane was being recovered from the water. The inspector reported that no preaccident mechanical anomalies were noted with the airplane's flap or aileron systems. He added that the following day, prior to daylight conditions (dawn), he observed other operators departing with low light conditions which made it difficult to see the rolling swells.

The closest official weather observation station is Iliamna. On August 25, 1999, at 0553, an Aviation Routine Weather Report (METAR) was reporting in part: Wind, 259 degrees (magnetic) at 7 knots; visibility, 10 statute miles; clouds, 7,500 feet broken; temperature, 51 degrees F; dew point, 46 degrees F; altimeter, 29.52 inHg. Official civil twilight for Iliamna was at 0610.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	65,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):	Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	December 5, 1998
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	7400 hours (Total, all aircraft), 2500 hours (Total, this make and model), 7300 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 75 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	de Havilland	**Registration:**	N930TG
Model/Series:	DHC-2 DHC-2	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1041
Landing Gear Type:	Float	**Seats:**	6
Date/Type of Last Inspection:	August 20, 1999 Annual	**Certified Max Gross Wt.:**	5100 lbs
Time Since Last Inspection:	5 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	15661 Hrs	**Engine Manufacturer:**	P&W
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	R-985
Registered Owner:	ARTHUR E. GERKEN	**Rated Power:**	450 Horsepower
Operator:		**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:	ILIASKA LODGE,INC.	**Operator Designator Code:**	T8GC

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Dawn
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 7500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	259°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, AK (ILI)	**Type of Flight Plan Filed:**	Company VFR
Destination:		**Type of Clearance:**	None
Departure Time:	06:20 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	4 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	5 None	**Latitude, Longitude:**	59.849296,-154.56015(est)

Administrative Information

Investigator In Charge (IIC):	Johnson, Clinton
Additional Participating Persons:	LEE F MCGARR (FAA); ANCHORAGE , AK
Original Publish Date:	November 30, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=47322