Aviation Investigation Final Report

Location:	PORT ALSWORTH, Alaska	**Accident Number:**	ANC94FA105
Date & Time:	August 11, 1994, 17:00 Local	**Registration:**	N17394
Aircraft:	DE HAVILLAND DHC-2	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	3 Fatal
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

THE PLANE WAS OBSERVED TO ENTER A VALLEY WITH MOUNTAINS ON BOTH SIDES. WHILE THE PILOT WAS MANEUVERING THE AIRPLANE TO THE LEFT TO REVERSE DIRECTION, IT COLLIDED WITH TERRAIN. WITNESSES REPORTED THE PLANE'S ENGINE SOUNDED NORMAL AND THAT THE WEATHER WAS GOOD WITH CLEAR SKIES, UNLIMITED VISIBILITY AND LIGHT WIND. A PILOT WHO FLEW OVER THE ACCIDENT SITE MINUTES AFTER THE MISHAP REPORTED THE AREA WAS DEVOID OF TURBULENCE. THIS WAS A PART 135, ON-DEMAND, LODGE/HUNTING GUIDE OPERATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER IN-FLIGHT PLANNING/DECISION BY THE PILOT, AND HIS FAILURE TO REMAIN CLEAR OF MOUNTAINOUS TERRAIN. THE BOX/BLIND CANYON AND PROXIMITY OF MOUNTAINOUS TERRAIN WERE RELATED FACTORS.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings
1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) TERRAIN CONDITION - BLIND/BOX CANYON

3. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
4. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On August 11, 1994, at approximately 1700 Alaska daylight time, a float equipped DeHavilland DHC-2 Beaver airplane, N17394, owned by R & J Aircraft Leasing Corporation of Anchorage, Alaska and operated by Talon Air Service, Inc. of Soldotna, Alaska, collided with terrain. The accident site is about four nautical miles east of Fish Trap Lake and about 18 nautical miles north of Port Alsworth, Alaska. The coordinates of the accident site are 60'29".50N X 154'28".40W. The commercial certificated pilot-in-command and the two revenue passengers on board the airplane received fatal injuries. The airplane was destroyed by the impact with the terrain and a post crash fire. At the time of the accident, the flight was being conducted under the on demand rules contained in 14 CFR Part 135 for the purpose of transporting two caribou hunters for Air Adventures, a commercial guide operation, from a remote hunting camp to the Moose Haven Lodge in Nikiski, Alaska. Talon Air Service, Inc. subcontracted to transport Air Adventure clients. The airplane last departed Caribou Lake at about 1630 and the destination was Nikiski. Witnesses in the area at the time of the mishap reported clear skies with unlimited visibility and light wind. A company VFR flight plan was in effect. The airplane was last seen by two sports fishermen flying on an easterly heading in what appeared to be straight and level flight. The plane's engine sounded normal to them. They observed the airplane disappear behind a mountain ridge followed a few seconds later by the sound of an explosion.

PERSONNEL INFORMATION

The pilot, Mr. Robert L. Oleson, date of birth May 29, 1937, was the holder of commercial pilot certificate No. 390388238, with the privileges and limitation for airplane single engine land and sea, multi-engine sea, instrument. His most recent Part 135 check in the DHC-2 airplane was completed on September 21, 1993. His second class medical certificate, dated October 6, 1993, contained the limitation that the holder shall possess correcting glasses for near vision while exercising the privileges of his airman certificate. At the time of the accident, Mr. Oleson's total flight time was 6,200 hours of which 3,500 were in the DHC-2 airplane. His flight time during the previous 90 days, 30 days, and 24 hours, was 174.8 hours, 131.5 hours, and 3.7 hours, respectively.

The cause of death for the pilot was determined by the State of Alaska, Office of the Medical Examiner, to be directly related to injuries sustained in the accident. Toxicological tests were negative for alcohol, major drugs of abuse, and prescription and over the counter medication.

WITNESS INFORMATION

Mr. Stue Ramstead reported that on the afternoon of August 11,1994, he was outside his cabin on Fish Trap Lake and observed a brown and cream colored DeHavilland Beaver airplane fly over the lake heading east. He observed the airplane make a left turn over a small lake east of his position, followed by a right turn heading into a small high valley. As the airplane entered the valley it turned left and appeared to stall. He watched the airplane collide with the mountainous terrain and explode. He got into his airplane and made several passes over the burning aircraft. He said that the weather was good at the time of the accident and there was no difficulty encountered with the wind.

On the afternoon of August 11, 1994, Mr. Richard Archer of 1022 5th St., Golden, Colorado 80403, and Mr. Ron Havengar of 4694 Simms, Wheat Ridge, Colorado 80033, were camped on Horseshoe Lake, about one mile east of Fish Trap Lake. Between 1700 and 1730 on the afternoon of August 11, 1994, the pilot landed the DeHavilland airplane on the lake. The pilot told them that he was just checking on them and that he was going to check on another hunting party. The pilot's physical and mental demeanor appeared normal to them. The pilot left and about thirty minutes later they observed the airplane overhead headed in an easterly direction. The plane appeared to be at a constant altitude and on a fixed heading, and its engine sounded normal. The airplane disappeared behind a mountain ridge, and a several seconds later they heard what sounded like an explosion. They reported that it was a nice day, with clear skies and a light wind. They estimated that the crash site was about 1 1/2 to 2 miles from their location.

AIRCRAFT INFORMATION

Talon Air Service, Inc. records indicate that airplane N17394 underwent its most recent annual inspection on June 16, 1994. As of that date, the engine had accrued 110.6 hours since major overhaul. At the time of the accident, the airframe had accumulated a total of 6774.7 flight hours.

A review of the airplane's maintenance records by the NTSB IIC revealed that at the time of the accident, there were no reoccurring or outstanding maintenance deficiencies affecting the airworthiness of the airplane.

WRECKAGE AND IMPACT INFORMATION

On August 11, 1994, the NTSB IIC conducted the on scene investigation. The IIC was accompanied to the accident site by Mr. Spencer K. Hill of the Federal Aviation Administration (FAA) and Mr. Alan C. Helfer, the owner, director of operations, and chief pilot for Talon Air Service, Inc. at the time of the accident.

The airplane crashed on the south face of a mountain at an elevation of about 2500 feet. The slope of the terrain in the area of the immediate accident site was approximately 28 degrees.

The surface of the terrain was rocky with intermittent low level vegetation.

STRUCTURE

All of the structural components of the airplane were accounted for at the accident site. Continuity was established with the flight control system. All of the observed breaks in the control cables were induced by overload.

KINEMATICS

Ground signatures indicate that the right and left float contacted the ground at about the same time. There was a more pronounced ground signature from the left float. The ground signatures were on a magnetic heading of 258 degrees. Pieces of green navigation glass and an aero flash signal control box were found about 12 feet upslope from the initial ground scar. The right and left wings separated in horizontal overload from their respective fuselage mount points. Likewise, the right and left floats were separated from their fuselage attachment points. The fuselage slid downslope about 85 feet from the initial impact area and came to rest on its left side on a magnetic heading of 24 degrees. There was a burn path in the foliage where the fuselage slid downslope. The engine firewall, a section of door framing, and a five foot section of the empennage were all that remained of the fuselage structure.

ENGINE/PROPELLER

The three blade propeller assembly remained attached to the engine. All of the blades were bent and there was scoring along their leading edges. One blade tip was missing. The tips of the remaining two blades were curled.

The engine was structurally intact. It underwent extensive thermal cooking. Associated wiring and light tubing were burned away.

COCKPIT/FUSELAGE

The cockpit was completely consumed by the post crash fire. No meaningful information could be obtained from instrumentation that inhabited this area.

The passenger cabin portion of the fuselage was consumed by the post crash fire.

Pilot Information

Certificate:	Commercial	**Age:**	57,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; 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:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	October 6, 1993
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	6200 hours (Total, all aircraft), 3500 hours (Total, this make and model), 4900 hours (Pilot In Command, all aircraft), 175 hours (Last 90 days, all aircraft), 131 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	DE HAVILLAND	**Registration:**	N17394
Model/Series:	DHC-2 DHC-2	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	495
Landing Gear Type:	Float	**Seats:**	7
Date/Type of Last Inspection:	June 16, 1994 Annual	**Certified Max Gross Wt.:**	5090 lbs
Time Since Last Inspection:	29 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	6775 Hrs	**Engine Manufacturer:**	P&W
ELT:	Installed, not activated	**Engine Model/Series:**	R-985-14B
Registered Owner:	R & J LEASING CORPORATION	**Rated Power:**	450 Horsepower
Operator:	TALNON AIR SERVICE	**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	ITDC

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	50 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/ None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CARIBOU LAKE	**Type of Flight Plan Filed:**	Company VFR
Destination:	NIKISKI	**Type of Clearance:**	None
Departure Time:	16:30 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:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	2 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 Fatal	**Latitude, Longitude:**	60.200542,-154.280578(est)

Administrative Information

Investigator In Charge (IIC):	Borson, Timothy
Additional Participating Persons:	SPENCER K HILL; ANCHORAGE , AK
Original Publish Date:	June 5, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=2450