Aviation Investigation Final Report

Location:	PORT ALSWORTH, Alaska	**Accident Number:**	ANC02LA110
Date & Time:	September 1, 2002, 09:00 Local	**Registration:**	N185CF
Aircraft:	Cessna 185	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private certificated pilot departed a remote lake in a float-equipped airplane, en route to another lake. The route of flight crossed a mountain saddle about 5 miles from the point of departure. After takeoff, the pilot reported that he gained sufficient altitude to clear the mountain saddle. The pilot said that as he crossed the saddle, the airplane encountered a violent downdraft that unexpectedly resulted in a loss of several hundred feet of altitude. He said he was unable to arrest the airplane's descent, and maneuvered the airplane to avoid a low hill. The airplane collided with tree-covered terrain on the side of the mountain, and then nosed over. The pilot indicated he did not obtain a weather briefing. He reported that the weather conditions included unlimited visibility, a temperature of 50 degrees F, a wind of 3 to 5 knots from the north, no precipitation, no turbulence, and little to no wind at the departure point. The area forecast indicated no significant turbulence. The closest official weather observation station was 14 miles away, and a METAR was reporting in part: Wind, calm; visibility, 20 statute miles in light rain; clouds and sky condition, 3,000 feet broken, 5,500 feet overcast; altimeter, 29.91 inHg.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate evaluation of the area weather conditions, and his subsequent inability to maintain terrain clearance upon encountering a downdraft, which resulted in an in-flight collision with tree-covered mountainous terrain. A factor in the accident was a downdraft.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings
1. (F) WEATHER CONDITION - DOWNDRAFT
2. (C) WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
3. OBJECT - TREE(S)
4. TERRAIN CONDITION - MOUNTAINOUS/HILLY
5. (C) ALTITUDE/CLEARANCE - NOT POSSIBLE - PILOT IN COMMAND

Factual Information

On September 1, 2002, about 0900 Alaska daylight time, a float-equipped Cessna 185 airplane, N185CF, sustained substantial damage during a collision with tree-covered terrain, about 14 miles southwest of Port Alsworth, Alaska. The airplane was being operated as a Title 14, CFR Part 91, visual flight rules (VFR) local area personal flight when the accident occurred. The airplane was operated by the pilot. The private certificated pilot, and the two passengers, received serious injuries. Visual meteorological conditions prevailed. The flight originated from Keyes Point, Lake Clark, Alaska, located about 5 miles southeast of the accident site, at 0850, and was en route to Long Lake. No flight plan was filed.

During an interview with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on September 1, the pilot reported that he just departed Lake Clark, and had leveled the airplane about 1,000 feet above the ground. As the airplane crossed over a small ridge, the pilot said he encountered a severe downdraft. The airplane began to descend, and he banked the airplane to the left to avoid a low hill. He applied full engine power, but the airplane continued to descend. The pilot said he could not maintain altitude, and the airplane collided with the ground and nosed over.

In the Pilot/Operator Aircraft Accident/Incident Report (NTSB Form 6120.1) submitted by the pilot, the pilot indicated he did not obtain a weather briefing. He reported that the weather conditions included unlimited visibility, a temperature of 50 degrees F, a wind of 3 to 5 knots from the north, no precipitation, and no turbulence. In the narrative portion of the report, the pilot indicated that there was little to no wind at the departure point. After takeoff, he gained sufficient altitude to clear a mountain saddle along the route of flight. He stated that the airplane suddenly encountered a violent downdraft that unexpectedly caused the airplane to lose several hundred feet of altitude. He was unable to arrest the airplane's descent, and the airplane collided with a tree on the side of the mountain and nosed over.

The area forecast for Bristol Bay, issued on September 1, 2002, at 0545, and valid until 1800, stated, in part: Clouds and weather; AIRMET for mountain obscuration, Alaska Range occasionally obscured in clouds and precipitation, improving. Clouds, 2,500 feet scattered, 4,000 feet broken, 6,000 feet broken, tops at 8,000 feet, scattered conditions in light rain showers. Coast/offshore, occasionally 2,500 feet broken. Outlook, valid from 1800 to 1200 on September 2, 2002, coast/offshore, marginal VFR conditions with ceilings due to mist; inland, VFR conditions. Turbulence, none significant. Icing and freezing level, none significant, freezing level, 5,000 feet.

The closest official weather observation station is Port Alsworth, Alaska. At 0848, an Aviation Routine Weather Report (METAR) was reporting in part: Wind, calm; visibility, 20 statute miles in light rain; clouds and sky condition, 3,000 feet broken, 5,500 feet overcast; altimeter, 29.91

inHg.

Pilot Information

Certificate:	Private	**Age:**	43,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	April 23, 2002
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 21, 1999
Flight Time:	1559 hours (Total, all aircraft), 150 hours (Total, this make and model), 1459 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N185CF
Model/Series:	185	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	02676
Landing Gear Type:	Float	**Seats:**	4
Date/Type of Last Inspection:	June 15, 2002 Annual	**Certified Max Gross Wt.:**	3350 lbs
Time Since Last Inspection:	40 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2599 Hrs at time of accident	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	IO-520-D
Registered Owner:	DAVID RENKOSKI	**Rated Power:**	300 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	PALJ,100 ft msl	**Distance from Accident Site:**	14 Nautical Miles
Observation Time:	08:48 Local	**Direction from Accident Site:**	45°
Lowest Cloud Condition:		**Visibility**	20 miles
Lowest Ceiling:	Broken / 3000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.9 inches Hg	**Temperature/Dew Point:**	9°C
Precipitation and Obscuration:	Light - None - Rain		
Departure Point:	PORT ALSWORTH, AK	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	08:50 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 Serious	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 Serious	**Latitude, Longitude:**	60.111667,-154.671661

Administrative Information

Investigator In Charge (IIC):	ERICKSON, SCOTT
Additional Participating Persons:	PATRICK LEONARD; FAA-AL-ANC FSDO 03; ANCHORAGE, AK
Original Publish Date:	April 18, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=55629