National Transportation Safety Board
Aviation Accident Final Report

Location:	Seward, AK	**Accident Number:**	ANC06LA015
Date & Time:	01/02/2006, 1100 AST	**Registration:**	N212RF
Aircraft:	Cessna 180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airline transport certificated pilot was conducting a personal cross-country flight under Title 14, CFR Part 91, in an area of steep mountainous terrain. The pilot said his routine was to fly over a mountain saddle near the top of a glacier at 4,500 feet above sea level, and continue to his destination. He reported that he was cruising above the glacier at 4,500 feet altitude, when he encountered severe turbulence and downdrafts, and subsequently collided with the glacier. A U.S. Coast Guard C-130 airplane flying in the area received a signal from the accident airplane's emergency locator transmitter, and located the wreckage on the glacier. The aircraft commander said when they arrived over the area, the area was covered in clouds. He said they located clear air, descended, and returned to the accident site underneath the overcast. He said they could see up the glacier, and that there was about 200 feet of clearance between the saddle at the top of the glacier and the cloud cover. He stated as they passed over the wreckage approaching the saddle, their navigation instruments indicated a 40 knot headwind, and noted that the mountain peaks on either side of the saddle were obscured by clouds. He said they had to leave the area due to deteriorating weather. An Air National Guard helicopter dispatched to the accident site aborted several attempts to reach the site due to poor weather, and eventually reached the accident site about 9 hours after the accident. The Air National Guard para-rescue technician who made initial contact with the pilot reported that the pilot said he was flying up the glacier, encountered a downdraft, and turned down slope to "escape" when the airplane contacted the glacier. An area weather forecast valid at the time of the accident, indicated areas of marginal VFR weather with rain and snow showers. The forecast did not forecast any significant turbulence. The closest automated weather reporting facility is 7 miles from the accident site. Observations taken during the timeframe of the accident, reported rapidly varying visibilities from 10 miles to less than 1 mile, and ceilings varying from 100 feet to 6,000 feet. The accident pilot said there were no mechanical anomalies with the airplane prior to the accident. As of August, 2006, the airplane had not been recovered.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate weather evaluation, which resulted in an in-flight encounter with low ceilings, turbulence, and downdrafts in cruise flight, and the pilot's failure to maintain altitude/clearance while maneuvering, which resulted in an in-flight collision with terrain. Factors associated with the accident were low ceilings, turbulence, and downdrafts.

Findings

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

Findings
1. (F) WEATHER CONDITION - LOW CEILING
2. (F) WEATHER CONDITION - DOWNDRAFT
3. (F) WEATHER CONDITION - TURBULENCE
4. (C) WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings
5. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
6. TERRAIN CONDITION - MOUNTAINOUS/HILLY
7. TERRAIN CONDITION - SNOW COVERED

Factual Information

On January 2, 2006, about 1100 Alaska standard time, a wheel-equipped Cessna 180 airplane, N212RF, sustained substantial damage when it collided with terrain during maneuvering flight, about 7 miles east of Seward, Alaska. The airplane was being operated by the pilot as a visual flight rules (VFR) personal cross-country flight under Title 14, CFR Part 91, when the accident occurred. The airline transport pilot received serious injuries, and the sole passenger received fatal injuries. Visual meteorological conditions prevailed, and no flight plan was filed. The flight departed the Quartz Creek airstrip, Cooper Landing, Alaska, about 1030.

A U.S. Coast Guard C-130 airplane from Coast Guard Air Station Kodiak, was flying in the area of the accident, and received an emergency signal from the accident airplane's emergency locator transmitter (ELT), about 1205. The Coast Guard airplane located the accident airplane on the Godwin Glacier, and relayed its location to the Rescue Coordination Center (RCC) in Anchorage, Alaska. A helicopter from the Alaska, Air National Guard, 210th Rescue Squadron, was dispatched to the scene, but was unable to reach the site due to clouds obscuring the accident site. After aborting several attempts to reach the site due to weather on the glacier, the helicopter made it to the site about 2000.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on January 4, the Air National Guard para-rescue technician who made initial contact with the pilot, said the pilot told him he had been flying up the glacier, encountered a downdraft, and was being pushed down. He said the pilot told him he turned down slope to "escape" when the airplane contacted the glacier. The rescue technician described the accident site as a snow-covered glacial slope of 10 degrees or less, about 4,100 feet in elevation, and noted that they were able to land their helicopter on the slope. He said the airplane contacted the glacier up slope from where it had come to rest, and that the landing gear had separated from the airplane, and lay upslope from the main wreckage.

During an interview with the NTSB IIC and an FAA Aviation Safety Inspector on January 4, the pilot said he departed Cooper Landing for a private airstrip he frequents at Cape Junken, Alaska, which is typically a 30 minute flight. He said his general routine is to fly over Seward, cross a saddle near the top of the glacier at 4,500 feet above sea level, and proceed to Cape Junken. He said he did not recall anything out of the ordinary, and said there were no problems with the airplane or its engine. He said he does not have any independent recollection of the accident.

During a telephone conversation with the NTSB IIC on January 12, the aircraft commander of the Coast Guard C-130 airplane that located the wreckage, said they were transiting the area of the accident when they received a signal from the accident airplane's emergency locator transmitter (ELT). He said the area had an overcast cloud cover, which was underneath them. He located clear air where they could descend, and returned to the accident site underneath the overcast. He said they could see up the glacier, and that there was about 200 feet of clearance between the saddle at the top of the glacier and the cloud cover. He said as they passed over the accident site approaching the saddle, their navigation instruments indicated a 40 knot headwind, and that the mountaintops on either side of the glacier were obscured by clouds. The aircraft commander said they were able to circle in a bowl near the accident site for a short time until deteriorating weather forced them back on top of the overcast.

In a written statement to the NTSB dated January 27, the pilot wrote that while maneuvering

in the mountains at 4,500 feet altitude, he encountered what he believed was severe turbulence and downdrafts.

An area weather forecast valid at the time of the accident, indicated areas of marginal VFR weather with rain and snow showers. The forecast does not indicate any turbulence. The closest automated weather reporting facility is at the Seward Airport, about 7 miles from the accident site. Observations taken during the timeframe of the accident indicate rapidly varying visibilities from 10 miles to less than 1 mile, and ceilings varying from 100 feet to 6,000 feet.

As of August 2006, the airplane was not recovered from the glacier. No pieces or parts of the accident airplane were taken or retained by the NTSB.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	**Age:**	60, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Instrument Airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 With Waivers/Limitations	**Last FAA Medical Exam:**	06/01/2005
Occupational Pilot:		**Last Flight Review or Equivalent:**	06/01/2005
Flight Time:	25000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N212RF
Model/Series:	180	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	32394
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	04/01/2005, Annual	**Certified Max Gross Wt.:**	2500 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	6500 Hours as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	O-470K
Registered Owner:	Wayne Koecher	**Rated Power:**	230 hp
Operator:	Wayne Koecher	**Operating Certificate(s) Held:**	None

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:	Scattered / 4000 ft agl	**Visibility**	3 Miles
Lowest Ceiling:	Overcast / 4500 ft agl	**Visibility (RVR):**	
Wind Speed/Gusts:	40 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	360°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	-7°C
Precipitation and Obscuration:	Light - Blowing - Snow		
Departure Point:	Cooper Landing, AK (JLA)	**Type of Flight Plan Filed:**	None
Destination:	Cape Junken, AK	**Type of Clearance:**	None
Departure Time:	1045 AST	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 1 Serious	**Latitude, Longitude:**	60.155278, -149.215556

Administrative Information

Investigator In Charge (IIC):	Lawrence R Lewis	**Report Date:**	08/29/2006
Additional Participating Persons:	Mike Dolsen; Anchorage, FSDO-03; Anchorage, 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.ntsb.gov/pubdms/.		