



Aviation Investigation Final Report

Location:	Kotzebue, Alaska	Accident Number:	ANC13LA100
Date & Time:	September 13, 2013, 13:15 Local	Registration:	N8316Q
Aircraft:	Cessna U206F	Aircraft Damage:	Substantial
Defining Event:	VFR encounter with IMC	Injuries:	2 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Before departing from a remote hunting site on a short cross-country flight, the accident pilot obtained a pilot report from another pilot who had just flown the route. The pilot report indicated 25 miles visibility, clouds at 1,400 feet, and a cloud ceiling at 1,800 feet. The airplane departed uneventfully, and, about 15 minutes into the 30-minute flight, the airplane approached the last ridge before the destination airport. The top of the ridge was about 1,950 feet mean sea level. The pilot stated that the destination airport peninsula was visible in the distance with an estimated 500 feet of clearance between the top of the ridge and the base of the cloud ceiling. He added that, as the airplane neared the ridge, the airplane encountered a severe downdraft and an abrupt entry into instrument meteorological conditions and then subsequently collided with the ridge about 30 to 50 feet below the ridgeline. However, review of handheld GPS data revealed that the airplane was in a constant climb during the minutes leading up to the collision with the ridge except for a 6-foot descent just before the collision. Additionally, the nearest reporting weather station reported a cloud ceiling about 50 feet below the ridgeline. The pilot noted no preimpact mechanical malfunctions with the airplane that would have precluded normal operation. Thus, it is likely that the pilot was flying the airplane low to stay below the clouds and then began to climb the airplane to clear the ridge when he entered instrument meteorological conditions as the airplane approached the ridge.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's improper decision to continue visual flight rules flight into instrument meteorological conditions, which resulted in controlled flight into terrain.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Altitude - Not attained/maintained

Factual Information

History of Flight

Enroute-cruise	VFR encounter with IMC (Defining event)
Enroute-cruise	Controlled flight into terr/obj (CFIT)

On September 13, 2013, about 1315 Alaska daylight time, a Cessna U206F airplane, N8316Q, operated by a private individual, was substantially damaged when it collided with mountainous and hilly terrain about 25 miles northeast of Kotzebue, Alaska. The commercial pilot and passenger were seriously injured. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed for the planned flight to Ralph Wien Memorial Airport, Kotzebue, Alaska. No flight plan was filed for the flight that departed from a remote hunting camp near Kiana, Alaska, about 1300.

The pilot stated that the purpose of the accident flight was to get supplies at Kotzebue and return to the hunting camp. Prior to departure, he obtained a pilot report from another pilot that had just flown the route. The pilot report included visibility 25 miles, clouds at 1,400 feet, and a ceiling at 1,800 feet. The accident airplane departed uneventfully and was in cruise flight as it approached the last ridge before Kotzebue. The pilot further stated that the Kotzebue peninsula was visible in the distance with an estimated 500 feet of clearance, between the top of the ridge and the base of the cloud layer. The pilot added that as the airplane neared the ridge, a severe downdraft was encountered along with abrupt entry into instrument meteorological conditions. He stabilized the airplane using cockpit instrumentation; however, the airplane collided with the ridge about 30 to 50 feet below the ridgeline. The pilot also noted that there were no preimpact mechanical malfunctions with the airplane.

A handheld GPS was recovered from the airplane and forwarded to the NTSB Vehicle Recorders Laboratory, Washington, DC, for data download. Review of the downloaded data revealed that during the last 6 minutes of flight, the airplane climbed from a GPS altitude of 709 feet to a GPS altitude of 1,955 feet. During the last 1 minute of flight, as the airplane approached the ridge, it climbed from a GPS altitude of 1,562 feet, to a GPS altitude of 1,955 feet. One second later, the airplane descended 6 feet to a GPS altitude of 1,949 feet, followed by a 10-foot descent to 1,939 feet 8 seconds after; however, the groundspeed between those two records decayed from 53 knots to 12 knots, consistent with collision occurring during that time.

After learning about reports of a weak emergency locator transmitter signal north of Kotzebue, search and rescue personnel aboard an Army National Guard UH-60L helicopter were dispatched from Nome, Alaska. The two seriously injured occupants remained at the accident site, while pinned in the wreckage, for approximately 28 hours before rescue personnel could reach the accident site.

The closest weather reporting facility was at Kotzebue, about 25 miles southwest of the accident site. At 1253, a weather observation was reporting, in part: Wind from 230 degrees at 17 knots; visibility 9 miles in light rain, broken ceiling at 1,900 feet, overcast ceiling at 2,500 feet; temperature 6 degrees C; dew

point 3 degrees C; altimeter 29.81 inches Hg. At 1353, a weather observation was reporting, in part: Overcast ceiling at 1,700 feet.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	61
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	June 26, 2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	June 24, 2013
Flight Time:	9275 hours (Total, all aircraft), 27 hours (Total, this make and model), 9137 hours (Pilot In Command, all aircraft), 85 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N8316Q
Model/Series:	U206F	Aircraft Category:	Airplane
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	U20603177
Landing Gear Type:	Tricycle	Seats:	6
Date/Type of Last Inspection:	May 22, 2013 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	15 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	11165 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	C91 installed, activated, aided in locating accident	Engine Model/Series:	IO-520
Registered Owner:	On file	Rated Power:	300 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	OTZ,14 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	225°
Lowest Cloud Condition:		Visibility	9 miles
Lowest Ceiling:	Broken / 1900 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	17 knots /	Turbulence Type Forecast/Actual:	/ Terrain-Induced
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/ Severe
Altimeter Setting:	29.8 inches Hg	Temperature/Dew Point:	6°C / 3°C
Precipitation and Obscuration:	Light - None - Rain		
Departure Point:	Kiana, AK	Type of Flight Plan Filed:	None
Destination:	Kotzebue, AK	Type of Clearance:	None
Departure Time:	13:00 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	67.17778,-161.863052

Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Clark Miller; FAA - Fairbanks Flight Standards District Office; Fairbanks , AK Jan Smith; Cessna Aircraft Company; Wichita, KS
Original Publish Date:	August 14, 2014
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=88042

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).