Aviation Investigation Final Report

Location:	JUNEAU, Alaska	**Accident Number:**	ANC99FA108
Date & Time:	August 8, 1999, 18:52 Local	**Registration:**	N80229
Aircraft:	Cessna A185F	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	4 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot obtained a weather briefing prior to departing along a coastal route he had flown several times previously. The FAA FSS briefer advised that VFR flight was not recommended due to low visibility, clouds, and rain. The pilot contacted the destination airport control tower with a position report of five miles west of the Juneau International Airport. The controller responded that the airport was VFR, but conditions were lower to the west, and that two other airplanes to the west were unable to get in due to poor weather conditions. The pilot said he would try to reach the airport from another direction. About nine minutes later, the pilot radioed he was 'turning around.' Seconds later, the controller heard an ELT signal. The airplane wreckage was located about 500 feet msl on an island, about three miles south of the destination airport. The airplane was destroyed by impact forces. A postmortem toxicology test revealed Chlorpheniramine and Dextromethorphan in the pilot's blood and urine. Chlorpheniramine may be found in a number of over-the-counter cold remedies. The warning associated with this compound states, in part: 'Do not drive or operate machinery while taking this medicine as it may cause drowsiness.' Dextromethorphan is used as a cough suppressant.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued VFR flight into instrument meteorological conditions. Factors associated with the accident were mountainous/hilly terrain, low ceilings, the pilot's improper in-flight decision making, and the pilot's impairment from over-the-counter drugs.

Findings

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

Findings
1. (F) WEATHER CONDITION - LOW CEILING
2. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. (C) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND
4. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
5. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On August 8, 1999, about 1852 Alaska daylight time, a tundra tire equipped Cessna A185F airplane, N80229, was destroyed during a collision with mountainous terrain, about three miles south of the Juneau International Airport, Juneau, Alaska. The airplane was being operated as a visual flight rules (VFR) personal flight under Title 14, CFR Part 91, when the accident occurred. The certificated private pilot, and the three passengers aboard, received fatal injuries. Visual meteorological conditions prevailed at the flight's intended destination, and a VFR flight plan was filed. The flight originated at the Haines Airport, Haines, Alaska, about 1600, and was en route to Juneau.

On August 8, 1999, at 1544, the pilot telephoned the Juneau Flight Service Station (FSS), to get a weather briefing for his flight to Juneau. The flight service station service specialist provided an abbreviated weather briefing, and advised the pilot that VFR flight was not recommend due to reported and forecast low ceilings and visibility. The pilot then filed a VFR flight plan with the specialist.

Witnesses reported that while en route to Juneau, the accident airplane landed about 1630 at the Echo Ranch Bible Camp, located 23 miles northwest of Juneau. The flight departed the Bible camp for Juneau about 1819.

At 1828:20, the pilot contacted the Juneau Air Traffic Control Tower (ATCT) and reported that he was passing Lena Point, located about 5 miles west of Juneau. According to FAA air traffic control transcripts, the pilot said, "...I've got the uh south tip of Coghlan Island in sight uh is it ok to come in, over?" The ATCT specialist reported that the airport was operating under VFR conditions, but related that weather conditions to the west of the airport were worse. The ATCT specialist commented, "...I have a Caravan holding over Portland Island and a couple aircraft holding at uh Portland Island, one on the ground, and one in the water. They haven't been able to make it in sir, I had a Cherokee a few minutes ago make it in, but it was marginal at best."

At 1829:06, the pilot stated:"...I'd like to uh swing on in to uh Coghlan, and the uh we'll see if we can feel from there, over."

At 1830:49, the pilot said: "...I might swing around, it's pretty good on the outside, and see what uh Outer Point looks like, over."

Between 1842:06 and 1842:09, the accident airplane pilot reported that he was at Outer Point. Outer Point is located about 6 miles southwest of Juneau. The ATCT specialist asked him if

he was inbound to the airport, and the accident pilot responded, "uh negative, I think I'll go around the island here, it looks awful low up that way, over."

At 1851:55, The accident airplane pilot advised, "Juneau tower, uh, two two niner, we're turning back, over. No further radio contact from the accident airplane was received.

At 1852, an Emergency Locator Transmitter (ELT) was heard on 121.5 MHz by the Juneau FAA Flight Service Station (FSS) specialist on duty.

During an interview with the National Transportation Safety Board investigator-in-charge on August 10, a witness located about one-quarter of a mile from the accident site, reported that while sitting in her truck she heard what sounded like a low flying airplane headed towards her. She said: "I was really surprised to hear an airplane flying since the weather was so bad." She added that as the airplane engine sound got louder, she got out of her truck, and saw the accident airplane flying very low over the tree tops. She said: "I saw the airplane just fly out of the clouds, just a few feet from the tree tops, and make a hard right turn. I couldn't believe he was turning to the right, into the hillside." She said that as she lost sight of the airplane behind the trees, the engine speed increased significantly, followed by the sound of the airplane impacting trees.

The witness reported that immediately after hearing the impact, she reported the accident to the 911 fire emergency operator using her cellular phone. A ground search was initiated by the U.S. Coast Guard, Alaska State Troopers, Juneau Police, and Juneau-Douglas fire department.

Rescue personnel tracked an emergency locator transmitter (ELT) signal, and discovered the airplane wreckage about 2000, located about the 500 feet level of north Douglas Island, in an area of steep, heavily wooded terrain.

CREW INFORMATION

The pilot held a private pilot certificate with single-engine land and sea ratings. He did not hold an instrument rating. The most recent third-class medical certificate was issued to the pilot on June 15, 1999. It contained the limitation that read: "not valid for night flight or by color signal control."

No current personal flight records were located for the pilot. The aeronautical experience listed on page 3 of this report was obtained from the pilot's last airman's medical application of June 6, 1999. On that application, the pilot indicated that his total aeronautical experience as 3,220 flight hours.

Additional pilot history information was provided by the Juneau Flight Standards District Office, noting that the accident pilot's last recorded biennial flight review (BFR) was conducted on November 16, 1996. The inspector related that during his investigation, he was unable to locate any record that a subsequent BFR had been accomplished. A copy of the FAA

inspectors statement is included in this report.

AIRCRAFT INFORMATION

A Federal Aviation Administration (FAA) airworthiness inspector from the Juneau Flight Standards District Office, examined the airplane's maintenance records. He reported that the most recent annual inspection of the engine and airframe, was accomplished on March 6, 1999. At that time, the airplane and engine had accrued 1,797.0 hours in service. He added that at the time of the accident the total airframe time was estimated to be 1,831, or 34.0 hours after the annual inspection was accomplished.

METEOROLOGICAL INFORMATION

The closest official weather observation station is Juneau, which is located about three nautical miles north of the accident site. On August 8, 1999, at 1853, an Aviation Routine Weather Report (METAR) was reporting in part: Wind, 080 degrees at 6 knots; visibility, 4 statute miles in light rain and mist; clouds, 500 feet scattered, 1,300 feet broken, 3,000 feet overcast; temperature, 57 degrees F; dew point, 55 degrees F; altimeter, 29.88 inHg.

A pilot that was inbound to the Juneau International Seaplane Base, characterized the weather conditions along the accident airplane's route as "very low visibility with rain, fog, and very low ceilings." She added that due to the deteriorating weather conditions, she elected to land and wait for better weather conditions before proceeding to Juneau.

The terminal forecast for the Juneau area, issue on August 8, 1999, at 1530, and valid from 1600 until August 9, 1999, at 1600, was reporting, in part: "Wind, 120 degrees at 8 knots; visibility greater than 6 statute miles; clouds, 800 feet scattered. Temporary conditions between 1600, and August 9, at 1600; visibility 4 statute miles in light rain and mist; clouds, 1,200 feet broken 2,500; ceiling, 2,500 feet overcast. From August 9, at 0800; wind, 000 degrees at 8 knots; visibility, greater than 6 statute miles in light rain; clouds, 800 feet scattered; ceilings, 3,500 feet overcast. Temporary conditions between 0800 and 1600 on August 9, 1999; visibility 5 statute miles in rain and mist; clouds, 1,500 feet broken; ceiling, 2,500 feet overcast.

COMMUNICATIONS

A transcript of telephone, and air to ground communications between the accident airplane, the FSS, and ATCT are included in this report.

WRECKAGE AND IMPACT INFORMATION

The National Transportation Safety Board investigator-in-charge examined the airplane wreckage at the accident site on August 9, and 10. The accident site was about three miles south of the Juneau International Airport, at 58 degrees 19 minutes north latitude, 134 degrees

36 minutes west longitude.

The airplane collided with trees, and steep sloping wooded terrain. Several trees were broken and toppled at the accident site. Trees in the area ranged from 75 feet, to 100 feet tall.

A path of wreckage debris, from an area of broken tree tops, to the point of contact with the forest floor, was estimated to be on a magnetic heading of 080 degrees. (All heading/bearings noted in this report are oriented toward magnetic north.)

The main fuselage wreckage was found about 100 feet down a steep embankment from the presumed initial impact point. The main fuselage wreckage was lodged against two large trees.

Both wings were separated from the main fuselage and remained uphill from the main fuselage.

The empennage was torn from the main fuselage, just forward of the vertical stabilizer.

All flight control surfaces were accounted for at the accident site. The extent of structural damage to the fuselage and wings prevented a control cable continuity check.

The engine sustained impact damage, but remained attached to the firewall. Both propeller blades were bent aft and had leading edge gouging and chordwise scratching.

No evidence of any preimpact mechanical anomalies were discovered with either the engine or airframe.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination of the pilot was conducted under the authority of the Alaska State Medical Examiner, 5700 E. Tudor, Anchorage, Alaska, on August 10, 1999.

A toxicological examination was conducted by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma, on October 6, 1999. This examination revealed the presence of 0.017 (ug/ml,ug/g) of Chlorpheniramine in the pilot's blood, and an unquantified amount in the urine. In addition, the examination revealed an unquantified amount of Dextromethorphan in the pilot's blood and urine. A copy of the FAA toxicological report is attached.

The Physician's Desk Reference, 44th Edition, 1990, indicates the following properties of these drugs:

Chlorpheniramine may be found in a number of over-the-counter cold remedies. The warning associated with this compound states, in part: "Do not drive or operate machinery while taking this medicine as it may cause drowsiness."

Dextromethorphan is used as a cough suppressant.

SEARCH AND RESCUE

After being notified by witnesses via the 911 dispatcher, search and rescue personnel from the Capital City Fire Department, U.S. Coast Guard, Alaska State Troopers, and Juneau Police were dispatched to the scene. After conducting an extensive ground search, searchers located the wreckage about 1/4 mile south of the Douglas Highway, in an area of steep, heavily wooded terrain.

TESTS AND RESEARCH

The National Transportation Safety Board investigator-in-charge (IIC) recovered a GARMIN, model 95, hand held GPS unit from the accident site.

The GPS unit was shipped to GARMIN International, Inc., to recover the accident pilot's preaccident route of flight information. A Federal Aviation Administration (FAA) avionics inspector, Kansas City, Flight Standards District Office, was present during the data extraction process. He reported that the GARMIN International, Inc., technician was able to reconstruct the entire route of flight for the accident airplane. A copy of the report is attached.

WRECKAGE RELEASE

The National Transportation Safety Board released the wreckage to the owner's family on August 11, 1999. The retained avionics equipment was released to the family's representative on February 25, 2000.

Pilot Information

Certificate:	Private	**Age:**	56,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:**	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 15, 1999
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	3200 hours (Total, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N80229
Model/Series:	A185F A185F	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	18503105
Landing Gear Type:	Tailwheel	**Seats:**	6
Date/Type of Last Inspection:	March 6, 1999 Annual	**Certified Max Gross Wt.:**	3350 lbs
Time Since Last Inspection:	34 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1831 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	IO-520
Registered Owner:	GLENN H. CAVE	**Rated Power:**	300 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	PAJ ,19 ft msl	**Distance from Accident Site:**	3 Nautical Miles
Observation Time:	18:53 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Scattered / 500 ft AGL	**Visibility**	4 miles
Lowest Ceiling:	Broken / 1300 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	80°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	14°C / 13°C
Precipitation and Obscuration:			
Departure Point:	HAINES , AK (HNS)	**Type of Flight Plan Filed:**	None
Destination:	(JNU)	**Type of Clearance:**	None
Departure Time:	16:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	JUNEAU INTERNATIONAL JNU	**Runway Surface Type:**	
Airport Elevation:	19 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	3 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 Fatal	**Latitude, Longitude:**	55.609897,-131.580627(est)

Administrative Information

Investigator In Charge (IIC):	Johnson, Clinton
Additional Participating Persons:	JAMES HETTWER (FAA); JUNEAU , AK DAVID FREDERICK (FAA); ANCHORAGE , AK
Original Publish Date:	December 4, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=47152