

National Transportation Safety Board Aviation Accident Final Report

Location:	STEAMBOAT SPNGS, CO	Accident Number:	DEN01FA094
Date & Time:	05/05/2001, 0858 MDT	Registration:	N948FE
Aircraft:	Cessna 208B	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The pilot obtained a weather briefing, filed an IFR flight plan, and departed on a nonscheduled domestic cargo flight, carrying 270 pounds of freight. The flight proceeded uneventfully until it was established on the VOR/DME-C approach. Radar data indicates that after turning inbound towards the VORTAC from the DME arc, the airplane began its descent from 10,600 feet to the VOR crossing altitude of 9,200 feet. Enlargement of the radar track showed the airplane correcting slightly to the left as it proceeded inbound to the VORTAC at 9,400 feet. Shortly thereafter, aircraft track and altitude deviated 0.75 miles northwest and 9,700 feet, 0.5 miles southeast and 9,600 feet, and 0.5 miles northwest and 9,400 feet before disappearing from radar. Witnesses said the weather at the time of the accident was 600 foot overcast, 1.5 miles visibility in "misting" rain that became "almost slushy on the ground," and a temperature of 36 degrees Fahrenheit. One weather study indicated "an icing potential greater than 50% and visible moisture" in the accident area. Another report said "icing conditions were likely present in the area of the accident." The airplane was equipped and certified for flight into known icing conditions. The wreckage was found in a closely area. There was no evidence of pre-impact airframe, engine, or propeller malfunction/failure. The pilot was properly certificated, but his flight time in aircraft make/model was only 38 hours. He had previously recorded 16 icing encounters, totaling 11.2 hours in actual meteorological conditions. He recorded no ice encounters and only 1.0 hour of simulated (hooded) instrument time in the Cessna 208. Microscopic examination of annunciator light bulbs revealed the GENERATOR OFF light was illuminated. This condition indicates a generator disconnection due to a line surge, tripped circuit breaker, or inadvertent switch operation. The operator's chief pilot agreed, noting that one of the items on the Before Landing Checklist requires the IGNITION SWITCH be placed in the ON position. The START SWITCH is located next to the IGNITION SWITCH. Inadvertently moving the START SWITCH to the ON position would cause the generator to disconnect and the GENERATOR OFF annunciator light to illuminate. He said this would be distracting to the pilot.

Probable Cause and Findings

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

an inadvertent stall during an instrument approach, which resulted in a loss of control. Contributing factors were the pilot's attention being diverted by an abnormal indication, conditions conducive to airframe icing, and the pilot's lack of total experience in the type of operation (icing conditions) in aircraft make/model.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT Phase of Operation: APPROACH - IAF TO FAF/OUTER MARKER (IFR)

Findings

1. (F) CAUTION/WARNING SYSTEM/LIGHT(S) - ACTIVATED

2. (F) DIVERTED ATTENTION - PILOT IN COMMAND

3. (C) STALL - INADVERTENT - PILOT IN COMMAND

4. (F) WEATHER CONDITION - ICING CONDITIONS

5. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND

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

Findings

6. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

HISTORY OF FLIGHT

On May 5, 2001, at 0856 mountain daylight time, a Cessna 208B, N948FE, owned by Federal Express Corporation of Memphis, Tennessee, and operated by Corporate Air, Inc., of Billings, Montana, as Airspur Flight 8810 (CPT8810), was destroyed when it collided with mountainous terrain approximately 3 miles south of Steamboat Springs, Colorado. The airline transport pilot, the sole occupant aboard, was fatally injured. Day instrument meteorological conditions prevailed, and an IFR (instrument flight rules) flight plan had been filed for the on-demand cargo flight being operated under Title 14 CFR (Code of Federal Regulations) Part 135. The flight originated in Casper, Wyoming, at 0744, and was en route to Steamboat Springs.

According to Federal Aviation Administration (FAA) documents, the pilot telephoned the Casper Automated Flight Service Station (AFSS) at 0433 on the morning of May 5, and requested weather reports for stations in northwestern Colorado. He was given an "abbreviated weather briefing," that included current weather observations for Casper, Rawlins, and Rock Springs, Wyoming, and Hayden, Craig, and Aspen, Colorado; current AIRMETs (Aeronautical Meteorology) that forecast occasional moderate rime and mixed icing in clouds and precipitation from 8,000 to 20,000 feet above mean sea level (msl), mountain obscurement in all quadrants, and occasional moderate turbulence above 18,000 feet; terminal forecasts for Casper, Rock Springs, and Rawlins; and winds aloft forecast for Crazy Woman and Medicine Bow, Wyoming, at 12,000 and 18,000 feet. The briefing was terminated at 0441.

According to the load manifest, the 270 pounds cargo aboard Airspur Flight 8810 consisted of "class 2.2 non-flammable" refrigerated gas and "class 1.4 explosive" (blasting caps).

At 0736, the pilot contacted Casper ground control and was issued an IFR clearance to Steamboat Springs "via V26 Cherokee (CKW VORTAC, Very High Frequency Omnidirectional Radio Range-Tactical Air Navigation)," and taxi clearance to runway 3. At 0742, the pilot was cleared for takeoff, and at 0744, he contacted Casper departure control. He was issued radar vectors to join V [victor (low altitude) airway] 26 and clearance to climb to 13,000 feet. At 0758, the pilot contacted Denver ARTCC (Air Route Traffic Control Center). All aircraft on that frequency were advised of a hazardous weather AIRMET for areas west of the Mississippi, and were advised to contact Flight Watch or FSS for more information. At 0832, the pilot requested the VOR/DME-C (Very High Frequency Omnidirectional Radio Range/Distance Measuring Equipment) instrument approach to the Steamboat Springs Airport runway 32. The flight was cleared for the approach via the BQZ (Robert VORTAC) 280 degrees radial 9 DME fix. At 0839, the pilot was advised that radar services were terminated and frequency change was approved. The pilot's acknowledgement of the clearance was the last radio contact with the flight. At 0923, after the pilot failed to report being on the ground at Steamboat Springs, Sundance Aviation (BNC) flight 498 was asked to monitor for an ELT (emergency locator transmitter) signal and to attempt contact with Airspur 8810. The Sundance pilot reported receiving no ELT signals and his attempt to contact Airspur 8810 was unsuccessful. FAA issued an ALNOT (Alert Notice) at 1034.

According to a statement submitted by another Corporate Air pilot, he was notified at his home approximately 0945 that the airplane was missing. He called corporate headquarters and

learned the last radio contact with the flight was when it was 19 miles north of the airport and had been cleared for an instrument approach. He drove to the airport, arriving there approximately 1215, and found that the Routt County Search and Rescue (SAR) had been activated and was preparing to initiate a ground search. He and one of his flight students took off in the latter's Cessna 170 airplane approximately 1245 and begin an aerial search. Approximately 1255, they located the wreckage of N948FE on the side of Emerald Mountain, in a steep drainage, about 0.5 mile south of the Robert VORTAC.

The accident occurred during the hours of daylight at a location of 40 degrees, 27.389' north latitude, and 106 degrees, 52.670' west longitude.

PERSONNEL INFORMATION

The 44-year-old pilot possessed an airline transport pilot certificate with an airplane multiengine land rating, and commercial privileges in airplanes, single-engine land, dated May 29, 1998. His first class airman medical certificate, dated June 5, 2000, contained no restrictions or limitations. His last proficiency check, administered by Corporate Air and dated June 5, 2000, constituted his initial checkout in the Cessna 208.

The pilot's most recent logbook (number 4), containing some incomplete entries from March 27, 1995, to May 4, 2001 (the day before the accident), indicated the following (all times approximate):

3,041.1
2,887.5
35.5
1,834.1
1,186.2
117.9
37.9
327.0
206.4
96.0
20.8

Items found amongst the pilot's personal papers were an FAA Pilot Proficiency Award Program Phase VII card, and a U.S. Department of Agriculture/Department of Interior Airplane Pilot Qualification card, endorsed for multiengine airplane with copilot, and single pilot with autopilot, and special mission endorsements for the Cessna 310, 340, 402, and 421 airplanes. The latter was issued by Lynch Flying Service, Billings, Montana, when the pilot was employed there.

According to the logbook, between 1999 and 2001, the pilot logged 16 icing encounters that totaled 11.2 hours in actual instrument meteorological conditions, to wit:

04/29/99 Cessna 402C, N5774C HLN/HLN 0.2 "Flight cancelled. Icing during climb. Unable to get 80(00). Returned to Helena."

05/12/99 Cessna 402C, N6839Y HLN/BIL 0.5 "Booted three times."

06/30/99 Cessna 402C, N5774C HLN/BIL 0.7 "11-13 degrees, +RA (heavy rain), moderate IC (icing) [up to] 15,000 ft. Heavy IMC.

10/02/99 Cessna 402B, N69316 BIL/COD/BIL 1.2 "IMC, 1,000 ft. overcast, 1/2 sm, 1 in. ice accumulation."

01/11/00 Cessna 402C, N5774C COD/WRL 0.2 "Moderate ice at 9,300 ft."

01/27/00 Cessna 402C, N5774C COD/BIL 0.3 "Clear ice @ Pyror int."

3/28/00 Cessna 402C, N5774C COD/BIL 0.4 "IMC@POY, tra(ce) ic(e)."

09/19/00 Cessna 340A, N2703U M46/BIL 0.5 "Ic(e) at 8(000 ft.)"

09/21/00 Cessna 414A, N9187S BIL/WRL 0.9 "Moderate ice."

10/04/00 Cessna 402B, N69316 GTF/BIL 1.5 "2 in. (accumulation) ice."

10/11/00 Cessna 414A, N9781S BIL/GTF 0.7 "5 layers 16(00) [down to] 12(00) ov(er)c(ast), moderate ic(e)."

11/11/00 Cessna 340A, N2703U S59/MSO 0.9 "3/8-in. ice."

12/04/00 Beech 100A, N9002N BTM/BIL 0.8 "Ice 3/4-1.0 in. A/S (airspeed) 140 (knots). Boot 5-6 times."

01/05/01 Cessna 414A, N5690C BIL/FCA 1.3 "Heavy ice."

01/15/01 Beech C90, N552R G2V/BIL 0.4 "Lt. rime (ice during) climb, tops 8,000 ft."

02/09/01 Cessna 414A, N5690C BIL/SDY 0.7 "Rime to clear ice."

Between March 28 to May 4, 2001, when the pilot was flying the Cessna 208 exclusively, he recorded no ice encounters and only 1.0 hour of simulated (hooded) instrument time.

AIRCRAFT INFORMATION

N948FE, a Cessna 208B (s/n 208B0052), was manufactured by the Cessna Aircraft Company in 1987. It was equipped with a Pratt & Whitney PT6A-114A engine (s/n 17079), rated at 675 shaft horsepower, and a Hartzell 3-blade composite, constant-speed, full feathering and reversible hydraulically actuated propeller (m/n HC-B3MN-3). According to the accident report submitted by Corporate Air, the airplane was maintained under an approved inspection program (AAIP). The airframe was last inspected on December 29, 2000. As of the date of the accident, the airframe had accrued 8,690.6 hours and 196.4 hours since the last inspection, and the engine had accumulated 9,557.0 hours since new, 5,895 hours since major overhaul, and 187 hours since last inspection. An entry in the "Aircraft Flight Records" made prior to the accident flight indicated the airframe had accrued 8,887.0 total hours and 8,527 total landings.

According to the Federal Aviation Administration, the Cessna 208 is certified for flight into known icing conditions when properly equipped. N948FE was equipped with leading edge deicing boots on the wings and on the horizontal and vertical stabilizers, and windshield antiice. A deice system had been installed on the external cargo pod and landing gear fairings on January 12, 1993.

METEOROLOGICAL INFORMATION

According to ground witnesses, Steamboat Springs' weather at the time of the accident was 600 foot overcast skies, 1.5 miles visibility in misting rain and a temperature of 36 degrees Fahrenheit.

A Superior Aviation pilot landed a Swearingen Metroliner at Yampa Valley Airport, Hayden, Colorado (located approximately 21 miles west of Steamboat Springs). He was in the vicinity of the accident site approximately 0815. He reported picking up a "dusting" of ice on departure from Denver, but did not accumulate any ice on approach to Hayden, nor did he hear of any reports of icing conditions in the area. He and his copilot had heard the radio communications from the pilot of Airspur 8810, and were "puzzled" why he requested the VOR/DME-C approach because the Hayden AWOS (automated weather observation station) was reporting "a ceiling (800 feet) lower than the MDA (minimum descent altitude, 1,262 feet). The pilot of BNC 498 was also in the vicinity shortly after the accident. He said he did not encounter any ice during his approach to Hayden. He described the weather conditions as a 2,000 to 3,000foot thick overcast layer of clouds and improving.

Ground witnesses and SAR personnel said that weather conditions at the time of the accident were "poor." The overcast ceiling was approximately 500 to 600 feet, temperature was approximately 40 degrees F., and visibility was 1-1/2 miles in "misting" or light rain that became "almost slushy on the ground."

NTSB's Operational Factors Division in Washington, DC, conducted a weather study. According to the meteorologist's factual report, there was "an icing potential greater than 50% and visible moisture" in the Steamboat Springs area.

WeatherData, Inc., of Wichita, Kansas, conducted another weather study at the request of the Cessna Aircraft Company. According to WeatherData's report, "Icing conditions were likely present in the area of the accident."

AIDS TO NAVIGATION

There were no reported difficulties with the various navigational radio aids.

COMMUNICATIONS

There were no reported difficulties with radio communications.

AERODROME INFORMATION

Steamboat Springs/Bob Adams Field (SBS) is located 3 miles northwest of the city at an elevation of 6,878 feet msl. It is served by one runway, 14-32, that is 4,452 feet long and 100 feet wide. The runway is made of grooved asphalt with a porous friction coarse overlay. Runway lighting is pilot-controlled with low, medium, and high intensity settings. In addition to the VOR/DME-C approach, there are published GPS (Global Positioning System) and RNAV (Area Navigation) instrument approaches available.

FLIGHT RECORDERS

The airplane was not equipped with a cockpit voice recorder or flight data recorder. It was, however, equipped with a PAR (power analyzer and recorder) computer that records and stores engine operating parameters. The computer was sent to NTSB's vehicle performance laboratory in Washington, DC, for download and readout. The EPROM (erasable programmable read only memory) data retrieved indicated that power was applied to the unit at 0737:02 and removed at 0858:39 on the morning of the accident. At the time of the power

loss, the PAR computer recorded normal power parameters and an outside air temperature of +1 degree Celsius. No exceedences were recorded and engine parameters were normal throughout the flight.

WRECKAGE AND IMPACT INFORMATION

The airplane struck the ground on a magnetic heading of 145 degrees, almost 180 degrees opposite the inbound course to the Robert VORTAC. The angle of terrain impact was approximately 40 degrees as measured by the severed treetops. The elevation at the accident site was 7,864 feet. There was no evidence of an in-flight or post-impact fire. SAR personnel reported "a strong odor of jet fuel" when they arrived on-scene. No airframe ice was noted on-scene. The fuselage sidewalls had been breached and had collapsed. The cargo had shifted to the forward portion of the cabin. A portion of the external cargo pod was located 25 feet downhill from the point of impact. The right wing was separated from the fuselage and located 20 feet south of the main wreckage. The outermost wing panel had also separated from the right wing. The leading edge bore numerous indentations similar to tree strikes. The left wing remained attached to the fuselage but was similarly damaged. Both wing fuel tanks had been compromised. Preimpact position of the fuel selector was inconclusive.

The vertical and horizontal tail remained attached to the fuselage. The flap actuator jackscrew was extended 3.25 inches, which, according to the Cessna Aircraft Company, indicated the flaps were extended 10 degrees. According to Corporate Air's chief pilot, company policy requires conducting a zero flap approach if there is any indication of an accumulation of airframe ice. The elevator trim actuator was extended 1.75 inches, which equates to 5 degrees tab up (nose down). Aileron trim measurement was unreliable due to impact damage. Control cable continuity was established to the elevators and rudder from the aft cabin area. Only partial control cable continuity could be established to the ailerons. Wing control cable separations were consistent with tensile overload.

The engine remained attached to the fuselage, but the propeller assembly had separated from the engine and one blade had separated from the hub. All of the blades were embedded in the ground about 5 feet from the main wreckage.

The pilot's seat was destroyed, but there was evidence to indicate that he had been wearing the 5-point restraint system. Most of the instruments, switches, and controls were destroyed. The pilot's altimeter indicated 9,450 feet and was set to 29.93 inches. The copilot's altimeter indicated 7,800 feet and was set to 29.92 inches. The radar altimeter indicated 120 feet and the bug, which was displaced, was set to 70 feet. The copilot's directional gyro indicated 145 degrees, and the vertical speed registered 2,000 fpm down. The cabin heater was off. Switches controlling the surface, windshield, and propeller deicing were either destroyed, or their positions were inconclusive and unreliable. The power, fuel condition, and propeller levers were in the idle, mid-range, and full forward positions, respectively.

MEDICAL AND PATHOLOGICAL INFORMATION

On May 8, 2001, an autopsy was performed at the Jefferson County Coroner's Office, Golden, Colorado.

The coroner's office and FAA's Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma also did toxicological screening. Both toxicological reports (CAMI #200100110001) indicated negative findings for carbon monoxide, hydrogen cyanide, and ethyl alcohol. However, 155.814 (ug/ml, ug/g) Salicylate was detected in blood. According to the toxicologist, Salicylate is found in analgesics and painkilling medications that are derivatives of salicylic acid. The best-known use of Salicylate is in the form of acetylsalicylic acid, or aspirin.

TESTS AND RESEARCH

Recorded National Track Analysis Program (NTAP) radar data was retrieved from the Denver ARTCC and plotted by Frank M. McDermott, Ltd., of Great Falls, Virginia. According to the data, the track of CPT8810 began at 0744:26, when it was north of Casper at 7,000 feet. It joined V26, climbed to 13,000 feet, and crossed the Cherokee VORTAC at 0817:07. It crossed the Dixon, Wyoming, Airport (9U4), passed just north of Hayden, Colorado, and descended to 10,700 feet as it joined the 9 DME arc (10,600 feet minimum arc altitude). At 0951:38, the target turned inbound on the final approach course to Robert VORTAC and began a descent (descent from 10,600 feet to 9,200 feet is allowed between the 9 DME arc and Robert VORTAC). The last radar contact was recorded at 0856:03 when the target was at 9,400 feet.

Radar data recorded between 0854:51 and 0856:03 was enlarged. Between 0854:51 and 0855:03, the target corrected slightly to the left as it proceeded inbound to the Robert VORTAC at 9,400 feet. Then, at 0855:39, the target was 0.75 miles to the northwest at 9,700 feet. Twelve seconds later (next antenna sweep), at 0855:51, the target was 0.5 miles southeast at 9,600 feet. Twelve seconds later, at 0856:03 (the last radar contact), the target was 0.5 miles northwest at 9,400 feet. The wreckage was located 0.75 miles east-northeast of this last contact.

On August 10, 2001, the fuel pump and fuel control unit (FCU) were disassembled and inspected at the facilities of Pratt & Whitney Canada Corporation in Quebec, Canada, under the auspices of the Transportation Safety Board of Canada. No causal anomalies were noted with either unit.

On August 1, 2001, the ejector flow control (deice) valves were examined at the facilities of Goodrich De-icing and Specialty Systems in Uniontown, Ohio, under the auspices of the Federal Aviation Administration. After a visual examination, measurement of the valve solenoid coil was made. Each valve developed an open circuit condition as a result of the lead wire being torn off the solenoid from impact forces. When bench tested, only one valve's (s/n N9154) poppet assembly was capable of switching from vacuum to pressure within manufacturer's specifications. Damage to the poppet assemblies in the other two valves (s/n N9187 and N9176) prevented a functional testing of the valves. No other anomalies were noted.

On January 25, 2002, the three de-ice valves were again examined at the facilities of Cessna Aircraft Company's Material and Process Engineering in Wichita, Kansas, under the auspices of the Federal Aviation Administration. According to their report, the "most likely reason for the shift in the poppet seat position was the force of the crash."

On November 6, 2001, the 1H75-14 pressure regulator was functionally tested at the Cessna Aircraft Company under the auspices of the Federal Aviation Administration using the Parker Aerospace acceptance test procedure (ATP). The initial regulated outlet pressure was approximately 15 psi. After the deice valve was energized simulating a deice cycle, the regulated outlet pressure increased to approximately 20 to 23 psi. When the deice valve was deenergized, the regulated outlet pressure returned to approximately 15 psi. A small amount of air was noted leaking out of the ambient sensing hole due to impact damage.

On September 28, 2001, selected bulbs from the airplane's annunciator panel were examined visually, stereomicroscopically, and by a scanning electron microscope (SEM) under the

auspices of the Federal Aviation Administration at Cessna Aircraft Company's Material and Process Engineering facility in Wichita, Kansas. According to its report, the condition of the tungsten alloy filaments indicated the GENERATOR OFF and WINDSHIELD ANTI-ICE lights were illuminated, and the VACUUM LOW, EMERGENCY PWR LEVER, and the DE-ICE PRESSURE lights were off. According to the Cessna 208 "Pilot's Operating Handbook," the GENERATOR OFF annunciation indicates a generator disconnection due to line surges, tripped circuit breakers, or accidental switch operation. Corporate Air's chief pilot agreed, but noted that one of the items on the Before Landing Checklist requires that the IGNITION SWITCH be placed in the ON position. The START SWITCH is located next to the IGNITION SWITCH. He said that if the pilot were to inadvertently position the START SWITCH to the ON position, the GENERATOR OFF and STBY POWER lights would illuminate. This abnormal indication would be distracting and would require the pilot to troubleshoot.

The Cessna 208 "Pilot's Operating Handbook" also notes that the WINDSHIELD ANTI-ICE annunciation indicates electrical power is being supplied to the windshield anti-ice power relay. The DE-ICE PRESSURE light is illuminated only when the pressure switch is closed and the deice boot system has reached approximately 15 psig (pounds per square inch gauge).

ADDITIONAL INFORMATION

In addition to the Federal Aviation Administration, parties to the investigation included the Cessna Aircraft Company, Pratt and Whitney, Corporate Air, and Federal Express Corporation.

The wreckage was released to Beegles Aircraft Service, Greeley, Colorado, on June 26, 2001. Retained components were later shipped to Beegles Aircraft after tests had been completed.

Certificate:	Airline Transport; Commercial	Age:	44, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	06/05/2000
Occupational Pilot:		Last Flight Review or Equivalent:	04/03/2001
Flight Time: 2916 hours (Total, all aircraft), 43 hours (Total, this make and model), 2840 hours (Pilot In Command, all aircraft), 43 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)			

Pilot Information

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N948FE
Model/Series:	208B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	208B0052
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	12/29/2000, AAIP	Certified Max Gross Wt.:	8750 lbs
Time Since Last Inspection:	196 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	8690 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	РТ6А-114А
Registered Owner:	Federal Express Corporation	Rated Power:	675 hp
Operator:	Corporate Air, Inc.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	HSYA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HDN, 6602 ft msl	Distance from Accident Site:	21 Nautical Miles
Observation Time:	0855 MDT	Direction from Accident Site:	250°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:	Broken / 800 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	1
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	2°C / 1°C
Precipitation and Obscuration:			
Departure Point:	Casper, WY (CPR)	Type of Flight Plan Filed:	IFR
Destination:	Steamboat Sprin, CO (SBS)	Type of Clearance:	IFR
Departure Time:	0744 MDT	Type of Airspace:	Class E

Airport Information

Airport:	Steamboat Springs/Bob Adams (SBS)	Runway Surface Type:	Unknown
Airport Elevation:	6878 ft	Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	VOR/DME
Runway Length/Width:		VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	40.456389, -106.877778

Administrative Information

Investigator In Charge (IIC):	Norman F Wiemeyer	Report Date:	09/20/2002
Additional Participating Persons:			
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 <u>pubinq@ntsb.gov</u> , or at 800-877-6799. Dockets released after this date are available at <u>http://dms.ntsb.gov/pubdms/</u> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available <u>here</u>.