



National Transportation Safety Board Aviation Accident Final Report

Location:	EAGLE RIVER, WI	Accident Number:	CHI96FA067
Date & Time:	12/30/1995, 1443 CST	Registration:	N991PC
Aircraft:	CESSNA 560	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The airplane was circling to land on runway 22 after executing a VOR/DME approach. The airplane impacted the ground approximately one quarter mile northeast of the runway 22 threshold. The wreckage path covered a distance of approximately 350 feet. Control continuity was established. Airframe, engine and navaid examination revealed no abnormalities. The left wing and horizontal stabilizer leading edges had approximately one-eighth inch of rime ice adhering to their leading edges. Two witnesses reported seeing the airplane rolling from the left to the right. The Eagle River AWOS was not available on a VHF radio frequency, due to radio frequency congestion at the O'Hare International Airport, Chicago, Illinois.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the pilot to maintain airspeed while executing the circling approach. Factors were the descent below minimum descent altitude, the fog, the low ceiling and the icing conditions.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CIRCLING (IFR)

Findings

1. (F) WEATHER CONDITION - ICING CONDITIONS
2. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. METEOROLOGICAL SERVICES, SCHED WEATHER BROADCAST - INADEQUATE
4. (F) ALTITUDE - DISREGARDED - PILOT IN COMMAND
5. (F) WEATHER CONDITION - FOG
6. (F) WEATHER CONDITION - LOW CEILING

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

Factual Information

HISTORY OF FLIGHT

On December 30, 1995, at 1443 central standard time (cst), a Cessna 560, N991PC, piloted by an Air Transport pilot, was destroyed when it collided with the terrain approximately one quarter mile north east of the runway 22 threshold, at the Eagle River Airport, Eagle River, Wisconsin. The airplane was circling to land on runway 22 after being cleared for the VOR/DME approach by Minneapolis center at approximately 1425 cst. The 14 CFR Part 91 flight was operating on an IFR flight plan. The pilot and copilot sustained fatal injuries in the accident. The airplane departed from Des Moines, Iowa, en route to Eagle River Airport, at 1343 cst.

METEOROLOGICAL INFORMATION

The local weather observation at 1359 cst for Rhinelander, Wisconsin, was given to the pilots of N991PC by Minneapolis Center. Rhinelander was reporting ceiling 300 overcast, visibility one mile, with fog. The automated weather observing system (AWOS) at Eagle River, Wisconsin, was recording a partial obscuration, ceiling 600 overcast, visibility one and one quarter miles, temperature 29, dew point 28. A Vilas county sheriff captain, reported precipitation in the form of freezing rain/sleet at the time of the accident.

AIDS TO NAVIGATION

A flight check was conducted of the Rhinelander VOR and the Eagle River NDB on January 1, 1996, by the Federal Aviation Administration (FAA). No abnormalities were noted in either facility.

AERODROME INFORMATION

The Eagle River Airport was equipped with a AWOS which was commissioned on December 1, 1995. The AWOS was recording the local weather, but was not transmitting the weather on a VHF frequency, at the time of the accident. The Great Lakes Office of the FAA was contacted by the investigator in charge (IIC) on February 8, 1996. The FAA reported to the IIC that due to radio frequency congestion at the O'Hare International Airport, Chicago, Illinois, no VHF frequency had been assigned to the AWOS station at Eagle River Airport.

The IIC contacted the Wisconsin Department of Transportation during the course of the investigation. During the last conversation with an employee of the Wisconsin Department of Transportation on May 10, 1996, no VHF frequency had been assigned to the AWOS station at Eagle River, Wisconsin, and the employee did not know when a frequency would be assigned.

FLIGHT RECORDER

The airplane was equipped with a cockpit voice recorder (CVR) which was replayed and transcribed at the National Transportation Safety Board's office in Washington, D.C. on January 31, 1996. The final 20 minutes and 56 seconds of the CVR tape are included as a supplement to this report.

WRECKAGE AND IMPACT INFORMATION

Wreckage documentation, control continuity and cockpit documentation were conducted on December 31, 1996. The airplane wreckage path followed a magnetic heading of 320 degrees, and covered a distance of approximately 350 feet. The left wing and horizontal stabilizer

leading edges had approximately one eighth inch of rime ice adhering to their leading edges. The cockpit area of the fuselage sustained extensive crushing and came to rest inverted. Due to the amount of crushing which was sustained by the cockpit area, only limited cockpit documentation was possible on December 31, 1995. The airplane was moved to the Eagle River Airport on the evening of December 31, 1995. During the process of moving the aircraft to the Eagle River Airport fuel was observed running out of the wing tanks of N991PC.

On January 1, 1996, the instrument panel was removed from the wreckage and the areas which could not be documented on December 31, 1995, were documented on January 1, 1996. Airframe inspection revealed no abnormalities with the airplane.

The airplane's right wing was crushed, the nose gear and right landing gear were separated from the airframe. The fuselage fractured at the aft pressure bulkhead and main cabin door areas. Both the horizontal and vertical stabilizer had separated from the aircraft. The vertical stabilizer had folded down on top of the upper surface of the left horizontal stabilizer. All four wing flaps were separated from the wing.

MEDICAL AND PATHOLOGICAL INFORMATION

On January 1, 1996, an autopsy was performed on the pilot and copilot by the Vilas County Coroner, Route 2 Box 251, Manitowish Waters, Wisconsin. Toxicological testing conducted by the FAA, was negative for all tests conducted, on the pilot and copilot.

TESTS AND RESEARCH

Examination of the engines on December 31, 1995 revealed the following. The thrust reversers for both engines were found in the closed position. Both engines contained a small area of ice approximately five inches in diameter, which had formed beneath the final turbine wheel. The right engine had separated from its mount and ingested a large amount of green insulation. Small pieces of insulation were found in the tail pipe area of the right engine. After preliminary examination both engines were placed in shipping containers and shipped to the manufacturer's overhaul facilities in Burlington, Vermont, for further examination.

At the manufacturer's facilities both engines were inspected on January 10 and 11, 1996. No abnormalities were noted and indications of power at impact were found on both engines. The full inspection report for both engines is included as a supplement to this report.

Five witnesses gave written statements to the IIC. Two witnesses reported seeing the airplane rolling from the left to the right. One witness wrote "It was teetering like a see-saw from side to side." A third witness wrote that N991PC was very low and started a left turn with approximately 90 degrees of bank angle, then banked 45 degrees to the right and struck the ground with the right wing tip. Two of these witnesses went up to the accident site and reported seeing fuel coming out of the airplane's fuel tanks.

ADDITIONAL INFORMATION

Parties to the investigation were the FAA, Pratt & Whitney, Cessna Aircraft Corporation and the Iowa Packing Company.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	70, 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:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/07/1995
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	20500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N991PC
Model/Series:	560 560	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	560-0043
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	10/13/1995, Continuous Airworthiness	Certified Max Gross Wt.:	16500 lbs
Time Since Last Inspection:	63 Hours	Engines:	2 Turbo Jet
Airframe Total Time:	1572 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT-15D-5A
Registered Owner:	IOWA PACKING	Rated Power:	2900 lbs
Operator:	IOWA PACKING	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	EGV, 1642 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1441 CST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Partial Obscuration / 0 ft agl	Visibility	1.25 Miles
Lowest Ceiling:	Overcast / 600 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	2 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	-2° C / -2° C
Precipitation and Obscuration:			
Departure Point:	DES MOINES, IA (DSM)	Type of Flight Plan Filed:	IFR
Destination:	(EGV)	Type of Clearance:	IFR
Departure Time:	1343 CST	Type of Airspace:	Class E; Student Jet Training Area

Airport Information

Airport:	EAGLE RIVER UNION (EGV)	Runway Surface Type:	
Airport Elevation:	1642 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	Circling; VOR/DME
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): DAVID A BOLDENOW **Report Date:** 07/11/1996

Additional Participating Persons: JAMES D MARTIN; MILWAUKEE, WI
DANIEL OCHYLSKI; DES MOINES, IA
DAVID RYAN; WICHITA, KS
TOM BERTHE; BURLINTON, VT

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.nts.gov/pubdms/>.

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