



National Transportation Safety Board Aviation Accident Final Report

Location:	Gwinner, ND	Accident Number:	CHI04LA278
Date & Time:	09/23/2004, 2345 CDT	Registration:	N7392B
Aircraft:	Cessna 208B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The airplane was substantially damaged when it impacted an open field about 1-1/2 miles south of the destination airport. The pilot had executed an instrument approach and was circling to land when the accident occurred. Night instrument meteorological conditions prevailed at the time. The area south and east of the airport was sparsely populated. The pilot reported that he obtained the Automated Weather Observing System (AWOS) broadcast for the destination via the aircraft radio while en route. He stated the reported visibility was above that required for the Non-Directional Beacon (NDB) approach, however, the ceiling was below the minimum descent altitude (MDA). He reported that he attempted to contact air traffic control (ATC) with the intention of diverting. He was not able to contact ATC and elected to continue to the destination. The pilot reported that he flew the entire NDB approach and stated: "When I arrived at the MDA, I saw the runway, directly below and a little to my left. My plan, at the time, was to circle left and land." He stated after that point he had no further recollection of the events surrounding the accident. The pilot reported that there were no failures or malfunctions associated with the aircraft. Two witnesses reported seeing lights from an airplane near the airport. One recalled that the weather was "foggy and a heavy mist." The other witness stated: "When I saw the plane it was very low but I thought it was going around for the landing because it looked like the plane had its right wing higher, and I could see part of the belly of the plane, which made it look like it was banking around." Flight control continuity was confirmed during a post-accident examination. The airport AWOS recorded an overcast sky at 400 feet above ground level (agl). The MDA for the instrument approach as 694 feet above field elevation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain altitude during the circling maneuver. Contributing factors were the pilot's improper decision to execute the approach when weather conditions were below minimums and the low light (dark night) conditions.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: CIRCLING (IFR)

Findings

1. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (C) ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
3. (F) LIGHT CONDITION - DARK NIGHT
4. AIR/GROUND COMMUNICATIONS - NOT AVAILABLE
5. TERRAIN CONDITION - OPEN FIELD

Occurrence #2: GEAR COLLAPSED
Phase of Operation: CIRCLING (IFR)

Factual Information

On September 23, 2004, at 2345 central daylight time, a Cessna 208B (Caravan), N7392B, operated by Eagle Air Cargo, Inc. and piloted by an airline transport pilot, was substantially damaged during an in-flight collision with terrain near Gwinner-Roger Melroe Field Airport (GWR), Gwinner, North Dakota. The flight was operating under 14 CFR Part 135 on an instrument flight rules (IFR) flight plan. Night instrument meteorological conditions prevailed at GWR at the time of the accident. The pilot sustained serious injuries. The flight departed Fergus Falls Municipal Airport (FFM), Fergus Falls, Minnesota, at 2307. The intended destination was GWR.

The pilot reported that the flight originated in Escanaba, Michigan. He noted that due to excessive headwinds en route and a lack of Jet-A fuel at GWR, he elected to land at FFM. After re-fueling and filing an IFR flight plan, he departed for GWR.

The pilot noted that he obtained the GWR Automated Weather Observing System (AWOS) broadcast via the aircraft radio while en route. He stated the GWR AWOS reported visibility was above that required for the Non-Directional Beacon (NDB) approach, however, the ceiling was below the minimum descent altitude (MDA). He reported that he attempted to contact air traffic control (ATC) with the intention of diverting to Fargo. However, he was not able to contact ATC and elected to continue to GWR.

The pilot reported that he flew the entire NDB approach to GWR. He stated: "When I arrived at the MDA, I saw the runway, directly below and a little to my left. My plan, at the time, was to circle left and land." He stated after that point he had no further recollection of the events surrounding the accident. The pilot reported that there were no failures or malfunctions associated with the aircraft.

Two witnesses about 2 miles south of the city of Gwinner reported seeing lights from an airplane near the Gwinner airport. They stated that it was about 2345. One recalled that the weather was "foggy and a heavy mist." The other witness stated: "When I saw the plane it was very low but I thought it was going around for the landing because it looked like the plane had its right wing higher, and I could see part of the belly of the plane, which made it look like it was banking around."

The aircraft impacted an open field about 1-1/2 miles south of GWR. The distance from the point of initial impact to the aircraft was approximately 450 feet. The cargo pod was separated and located in the debris path. The aircraft was upright, resting on the bottom, right side of the fuselage and the right wing tip. The right main landing gear strut was bent aft approximately 60 degrees. The outboard section of the right wing was bent upward about 20 degrees. Each wing appeared to be rotated forward approximately 10 degrees over the entire span about each wing root. The right aileron was damaged. The left horizontal stabilizer exhibited leading edge crushing.

The engine remained attached to the firewall, however, the engine mount was damaged and the engine was dislocated to the right. The propeller blades were twisted. The outboard portion of one blade separated about mid-span. The separated blade was in the debris path.

The cargo consisted of 64 loose castings. Each casting weighed approximately 46.75 lbs. Partition nets were installed between cargo zones 1 and 2 and between cargo zones 3 and 4. The forward net was torn from the lower anchor points and the castings were piled against the

aft side of the cockpit cargo barrier.

A Federal Aviation Administration inspector confirmed flight control continuity during a post-accident examination. The altimeter was set to 29.70 when observed after the accident.

Weather recorded by the GWR AWOS at 0445 was: Wind from 250 degrees at 8 knots; overcast sky at 400 feet above ground level (agl); temperature and dew point were 10 degrees Celsius; and the altimeter setting was 29.70 inches of Mercury.

Instrument approaches available at GWR were an NDB or global positioning system (GPS) approach to runway 34. The MDA was 1,960 feet mean sea level (MSL), which was 694 feet above field elevation. The required visibility was 1 statute mile.

The airport is located about 1 mile southeast of the city of Gwinner. With the exception of the city, the area surrounding the airport is sparsely populated with several small lakes.

The National Transportation Safety Board (NTSB) investigator-in-charge reviewed a tape of the communications between the accident aircraft and Minneapolis Air Route Traffic Control Center. During the aircraft's descent into GWR, the controller was unable to maintain voice contact with N7392B. The ATC approach clearance was relayed through another aircraft operating in the vicinity of GWR. The pilot who relayed the clearance reported that it was received and read back correctly.

14 CFR Part 135.225, IFR: Takeoff, approach and landing minimums, stated: "No pilot may begin an instrument approach procedure to an airport unless . . . the latest weather report issued by that weather reporting facility indicates that weather conditions are at or above the authorized landing minimums for that airport."

Pilot Information

Certificate:	Airline Transport	Age:	60, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last Medical Exam:	02/11/2004
Occupational Pilot:		Last Flight Review or Equivalent:	07/13/2004
Flight Time:	17420 hours (Total, all aircraft), 50 hours (Total, this make and model), 15200 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Cessna	Registration:	N7392B
Model/Series:	208B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	208B0045
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	06/15/2004, Annual	Certified Max Gross Wt.:	8750 lbs
Time Since Last Inspection:	40.9 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	11945.1 Hours	Engine Manufacturer:	Pratt & Whitney Canada
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	PT6A-114
Registered Owner:	Avon Capital Corp.	Rated Power:	600 hp
Operator:	Eagle Air Cargo Inc.	Air Carrier Operating Certificate:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	V61A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	GWR, 1266 ft msl	Observation Time:	2345 CDT
Distance from Accident Site:	1 Nautical Miles	Direction from Accident Site:	20°
Lowest Cloud Condition:		Temperature/Dew Point:	10° C / 10° C
Lowest Ceiling:	Overcast / 400 ft agl	Visibility	5 Miles
Wind Speed/Gusts, Direction:	8 knots, 250°	Visibility (RVR):	
Altimeter Setting:	29.7 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Fergus Falls, MN (FFM)	Type of Flight Plan Filed:	IFR
Destination:	Gwinner, ND (GWR)	Type of Clearance:	IFR
Departure Time:	2307 CDT	Type of Airspace:	Class G

Airport Information

Airport:	Gwinner-Roger Melroe Field (GWR)	Runway Surface Type:	Asphalt
Airport Elevation:	1266 ft	Runway Surface Condition:	
Runway Used:	16	IFR Approach:	ADF/NDB
Runway Length/Width:	5000 ft / 60 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	46.193056, -97.653611

Administrative Information

Investigator In Charge (IIC):	Tim Sorensen	Adopted Date:	03/30/2005
Additional Participating Persons:	John O Kline; FAA-Fargo FSDO; Fargo, ND		
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.ntsbt.gov/pubdms/ .		

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