

# **Aviation Investigation Final Report**

Location:	ANTIGO, Wisconsi	n	Accident Number:	CHI94FA048
Date & Time:	December 9, 1993,	, 19:56 Local	<b>Registration:</b>	N550BC
Aircraft:	PIPER	PA-32R-300	Aircraft Damage:	Substantial
Defining Event:			Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General av	viation		

### Analysis

The aircraft crashed during the second circling NDB approach at night about one-eigth mile south of runway 34. The first approach terminated in a missed approach. The business flight had been conducted on an IFR flight plan in IMC conditions. The pilot had received a weather brief and was advised of the possibility of low ceilings and fog. He received a PIREP from a pilot who had just landed at his destination before he attempted the first approach. The left wing of the airplane dragged the ground, and the airplane crashed while on the base-to-final turn.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the pilot in command to maintain proper altitude.

#### Findings

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

Findings

- 1. TERRAIN CONDITION OPEN FIELD
- 2. FLIGHT INTO KNOWN ADVERSE WEATHER PERFORMED PILOT IN COMMAND
- 3. WEATHER CONDITION LOW CEILING
- 4. (C) PROPER ALTITUDE NOT MAINTAINED PILOT IN COMMAND

5. WEATHER CONDITION - FOG
6. WEATHER CONDITION - DARK NIGHT

### **Factual Information**

#### HISTORY OF FLIGHT

On December 9, 1993, at 1956 central standard time, a Piper PA-32R-300, N550BC, was destroyed when it collided with the terrain during a circling NDB approach to runway 34 at the Langlade County Airport, Antigo, Wisconsin. The commercial pilot and his sole passenger were fatally injured. The business flight originated at the Big Beaver Airport, Troy, Michigan, at 1710. An IFR flight plan was filed, and instrument meteorological conditions prevailed at the time.

The pilot received a weather brief from the Lansing Automated Flight Service Station (AFSS) at 1641. The flight from Troy, Michigan to Antigo, Wisconsin, was uneventful. The flight was controlled by the Minneapolis Air Route Traffic Control Center. At 1915, Minneapolis Center advised the pilot there was another airplane on approach at Antigo, and that it was going to be a few minutes before he could be cleared for the approach. The airport manager of the Langlade County Airport was the pilot of the other airplane. He landed on runway 16 about 1920. He reported, "...IFR conditions. Cloud bases were ragged 700-800 feet (agl) with one mile visibility in fog." The mishap pilot was in radio communication with the airport manager, and reported to Minneapolis Center that the airport manager had landed. The pilot was cleared for the approach at Antigo, and reported he was outbound on the approach at 1934. Shortly after the pilot reported commencing the approach, center asked him if he needed the weather for the area. The pilot replied that the airport manager had given him a "rundown," and he was all set.

The airport manager and his wife heard the pilot pass over the airport outbound to the north, and inbound to the south, on the approach. They heard him transmit to Minneapolis Center that he was executing a missed approach, and wanted to try another one. The radio transmission was recorded at 1945. At 1951, the pilot reported established on his second approach. The last recorded radio transmission from the pilot was at 1951:39. The last recorded radar echo was at 1955:55. The airplane was north of the airport inbound to the NDB at 2,800 feet msl at the last radar echo. The airport manager and his wife heard the airplane fly over the terminal inbound on the second approach, but did not hear any radio transmission.

An airplane which departed the Langlade County Airport on runway 16 about 2100 reported he heard an ELT signal immediately after becoming airborne. He said the signal faded quickly as he departed to the south. Civil Air Patrol and Sheriff's Department personnel found the airplane about 750 feet south of the approach end of runway 34. The airport manager reported he drove around south of the airport about 20 minutes after the last radio transmission from the mishap pilot. He said the visibility had deteriorated to 1/4 mile in fog.

#### PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with airplane, single engine land rating. He also held an instrument, airplane, rating. He held a Class 2 medical certificate with the limitation that glasses be worn while flying. He had accrued 602 hours total flight time, and 400 hours in this model airplane. His log book indicated he had 140 hours actual, and 42 hours simulated instrument time. In the last 30 days he had logged 13 hours flight time, 9 hours night time, and 1 hours instrument time. In the last 90 days he had logged 27 hours flight time, 19 hours night time, and 8 hours instrument time. On June 28, 1993, he completed an instrument competency course and flight check at the University of Illinois Recurrent Training Center, Champaign, Illinois.

#### AIRCRAFT INFORMATION

The airplane was a Piper PA-32R-300, serial number 32R7780161, manufactured in 1977. The last inspection performed on the airplane was an annual completed on June 24, 1993. The airplane had accumulated 2,950 hours total time, and 59 hours since the last inspection. The last transponder and pitot static system IFR check was completed on August 27, 1993. No outstanding or deferred maintenance actions were discovered in the examination of the airplane and engine log books.

#### METEOROLOGICAL INFORMATION

IFR conditions with low ceilings, reduced visibility, and fog prevailed throughout the area at the time of the accident.

#### WRECKAGE

The airplane crashed in an open field about 750 feet south of the approach end of runway 34 at the Langlade County Airport. There was a ground scar 250 feet long which arced to the left. The heading at the start of the ground scar was 070 degrees magnetic. The main wreckage is located at the terminus of the arc, and is heading 030 degrees magnetic. The bottom engine cowling was located in the ground scar. The propeller, with multiple twists and bends, and a seven foot long outboard section of the left wing were lying about midway along the ground scar.

The left side of the cockpit and forward cabin was crushed to the rear. The inboard section of the left wing was broken off at the attach points and was lying on the right side of the airplane behind the right wing. The landing gear was down. The flaps were full down. Control cable continuity was established from the cockpit pedestal to the rudder, stabilator, and right aileron. The left aileron cable showed an overload failure at the point it exits the cabin at the left wing root.

The cockpit throttle, propeller, and mixture controls were all full forward. The engine

tachometer was stuck at 2500 rpm. The attitude gyro was jammed at 10 degrees nose down, and 60 degrees left wing down. The vacuum pump drive shaft was intact, and the pump turned freely. No preimpact mechanical irregularities were discovered on the engine or airframe during the investigation.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy and toxicological examination were performed. The autopsy was conducted by Robert W. Huntington, III, M.D., at the University of Wisconsin Medical School, Madison, Wisconsin. The toxicological examination was negative.

#### ADDITIONAL DATA

The wreckage was released to Mr. Robert Hunter, an officer of the corporation owning the airplane, on December 11, 1993.

#### **Pilot Information**

Certificate:	Commercial	Age:	51,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	October 16, 1993
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	602 hours (Total, all aircraft), 400 hours (Total, this make and model), 27 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N550BC
Model/Series:	PA-32R-300 PA-32R-300	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	32R7780161
Landing Gear Type:	Retractable - Tricycle	Seats:	б
Date/Type of Last Inspection:	June 24, 1993 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	59 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2950 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	IO-540-K1G5
Registered Owner:	PARSONS CHEVROLET-BUICK	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:	Night/dark
Observation Facility, Elevation:	AUW ,1201 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	01:50 Local	Direction from Accident Site:	50°
Lowest Cloud Condition:	Scattered / 200 ft AGL	Visibility	2 miles
Lowest Ceiling:	Overcast / 500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	3°C / 2°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	TROY , MI (3BB )	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	18:10 Local	Type of Airspace:	Class G

### **Airport Information**

Airport:	LANGLADE COUNTY AIG	Runway Surface Type:	
Airport Elevation:	1520 ft msl	<b>Runway Surface Condition:</b>	
Runway Used:	34	IFR Approach:	ADF/NDB;Circling
Runway Length/Width:	4002 ft / 75 ft	VFR Approach/Landing:	None

# Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	45.139087,-89.149391(est)

#### **Administrative Information**

Investigator In Charge (IIC):	Doub, Mark	
Additional Participating Persons:	CHESTER J CYBULSKI; MILWAUKEE , WI PATRICK HARRIGAN; MILWAUKEE , WI	
Original Publish Date:	December 2, 1994	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=9364	

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