



# Aviation Investigation Factual Report

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<b>Location:</b>	Webb Lake, Wisconsin	<b>Accident Number:</b>	CHI01FA089
<b>Date &amp; Time:</b>	February 14, 2001, 21:02 Local	<b>Registration:</b>	N120CC
<b>Aircraft:</b>	Piper PA-28R-201	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	4 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Factual Information

### HISTORY OF FLIGHT

On February 14, 2001, about 2102 central standard time, a Piper PA-28R-201(Arrow), N120CC, piloted by a commercial pilot, was destroyed on impact with trees, power lines, and terrain near Webb Lake, Wisconsin during takeoff from runway 4 at Voyager Village Airstrip Airport (Y05), near Webster, Wisconsin. The personal flight was operating under 14 CFR Part 91. Dark night and visual meteorological conditions prevailed at the time of the accident. No flight plan was on file. The pilot, student pilot rated passenger, and two other passengers were fatally injured. The flight was originating at the time of the accident and was destined for Lake Elmo Airport (21D), near Saint Paul, Minnesota.

Two airplanes landed at Y05 for dinner at the restaurant near the airport. After dinner, the flights departed for their respective destinations. The pilot of the airplane that departed before the accident airplane stated that on his takeoff he "bent forward as his window partially fogged. He used his landing light to align with the runway centerline and maintain runway heading until he gained visual cues. He heard the instructor pilot in the Arrow announce that the Arrow was departing runway 4. He tried calling the Arrow with no response."

A witness stated:

A minute or two later, I heard another plane. I again went to the window and saw the second plane taking off in the same direction. I noted that it was not very high off the ground. I saw its red and green lights but its headlight or landing light was not visible. The sound of the engine seemed normal but not as loud as the first plane's. I again sat down in my chair to resume watching TV.

A few seconds later, I heard what sounded like a crash or an explosion and the lights went out in the house.

Another witness stated in an interview:

...The nine o'clock news just started. He said he lost electrical power at his house about 10 minutes after 9. He stated the airport is about 400 yards from his house. He said the airplane sounded like it was working hard to make altitude. He stated that he heard two booms and then lost his lights. He said that there was a flash of light and he looked out to see a fire in front of his house and in the street. He said that there were tiny fires through out the area and the fires went out quickly. He said it was a cloudy night and very dark. ... He said the airplane noise was coming from a different direction than he usually hears.

The pilot of the airplane that departed before the accident airplane stated that he "saw one side of runway lights on the way in and did not notice runway lights on takeoff."

## PERSONNEL INFORMATION

The pilot was an instrument rated commercial pilot and he held a certified flight instructors certificate. He held a First Class Medical Certificate, dated September 29, 1998. His logbook listed a total of 441.2 hours of flight time and 42 hours of flight with night conditions.

The student pilot rated passenger held a Third Class Medical Certificate and Student Pilot Certificate dated April 14, 2000. The pilot listed that he had Lasik eye surgical treatment on that application for that medical certificate. A record of flight time was found on-scene. That record listed 53.1 hours of total time, 4.4 hours of night time, and 15.1 hours of cross country time.

## AIRCRAFT INFORMATION

The airplane was a Piper PA-28R-201, serial number 28R-7737057. The airplane logbook's last recorded annual inspection was dated January 16, 2001. That record listed the airplane's total time and its tachometer reading as 6,517.0 hours.

## METEOROLOGICAL INFORMATION

At 2103, the Rice Lake Regional - Carl's Field Airport, near Rice Lake, Wisconsin, weather was: Wind calm; visibility 10 statute miles; sky condition clear; temperature -20 degrees C; dew point -21 degrees C; altimeter 30.11 inches of mercury.

## WRECKAGE AND IMPACT INFORMATION

The airplane came to rest in a wooded area east of Long Lake Road at latitude 45 degrees 58.399 minutes N, and longitude 92 degrees 8.144 minutes W. About a nine foot section of the outboard right wing was found detached from the airplane approximately 300 yards southwest of the main wreckage resting at latitude 45 degrees 58.375 minutes N and longitude 92 degrees 8.224 minutes W in a wooded area west of Long Lake Road. Broken tree branches were found resting on the ground near that outboard section of right wing. The outboard section of the right stabilizer was found approximately 275 feet southwest of the main wreckage resting in that wooded area west of Long Lake Road. (See appended wreckage diagram.) The airplane fuselage was found inverted. The engine was found resting on the retained inboard section of right wing. The cabin door was found detached. The left and right fuel tanks were found deformed, discolored, and covered with a soot like substance. A single strand of dark copper colored wire was found wrapped around the aft fuselage and

empennage. The master, fuel pump, and anticollision light switches were found in the on position. The landing light switch was found in the off position. The main landing gear were found in the down and locked position. The landing gear handle was found in the down position. The tachometer's on-scene reading was 6,549.10 hours. A flight plan from 21D to Y05 and return to 21D was found in the wreckage. A chart was found with the flight planned course drawn on it.

An on-scene investigation was performed. Continuity was established to the flight controls. Engine control continuity was established. The engine produced a thumb compression at all cylinders. The left magneto produced spark at all leads. The electric fuel pump pumped a liquid when an electric current was applied. Fuel was found in the fuel selector valve. The selector valve was found selecting the left tank. The fuel flow divider diaphragm was found wet and had a smell similar to fuel. The propeller blades exhibited chordwise abrasions. A semicircular nick was found in the leading edge of a blade. The diameter of the wire wrapped around the aft section of the airplane was found to fit in that semicircular nick. No anomalies were found.

A power line that paralleled the east side of Long Lake Road was found with a section missing from one of its elevated lines.

## MEDICAL AND PATHOLOGICAL INFORMATION

Midwest Forensic Pathology P.A. performed autopsies on both pilots. The autopsy stated that the student pilot rated passenger was reported to be "seat-belted in the front left seat."

The Federal Aviation Administration (FAA) Civil Aeromedical Institute prepared a Final Forensic Toxicology Accident Report on both pilots. The reports were negative for both pilots.

## FIRE

A witness interview stated:

He stated that he heard two booms and then lost his lights. He said that there was a flash of light and he looked out to see a fire in front of his house and in the street. He said that there were tiny fires through out the area and the fires went out quickly.

## TESTS AND RESEARCH

A Garmin GPS was found in the area of the wreckage. The unit was sent to the FAA for examination at Garmin International, Inc. The unit's data was downloaded, printed on a spreadsheet, and printed on a chart. The last recorded position was latitude 45 degrees

58.375 minutes N and longitude 92 degrees 8.222 minutes W at "2/14/01 9:02:42 PM."(See appended spreadsheet and chart.)

## ADDITIONAL INFORMATION

The parties to the investigation included the FAA, Textron Lycoming, and The New Piper Aircraft, Inc.

The aircraft wreckage was released to a representative of the insurance company.

The airplane operator's safety recommendation stated, "The pilot of the other aircraft that departed just prior said 'We should have departed to the south. The wind was calm. But there are more lights, from a beacon, buildings, few houses etc. Simply more to reference ... the [horizon.]"

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	September 29, 1998
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	November 5, 2000
<b>Flight Time:</b>	441 hours (Total, all aircraft)		

### Student pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	36
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	April 14, 2000
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	53 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N120CC
<b>Model/Series:</b>	PA-28R-201	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	28R-7737057
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	January 16, 2001 Annual	<b>Certified Max Gross Wt.:</b>	2750 lbs
<b>Time Since Last Inspection:</b>	32 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6549.1 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-360-C1C6
<b>Registered Owner:</b>	Club Cherokee, Inc.	<b>Rated Power:</b>	200 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>	RPD,1105 ft msl	<b>Distance from Accident Site:</b>	36 Nautical Miles
<b>Observation Time:</b>	21:03 Local	<b>Direction from Accident Site:</b>	154°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/ None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.11 inches Hg	<b>Temperature/Dew Point:</b>	-20°C / -21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	WEBSTER, WI (Y05 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	ST PAUL, MN (21D )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	21:02 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	VOYAGER VILLAGE AIRSTRIP Y05	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1020 ft msl	<b>Runway Surface Condition:</b>	Snow
<b>Runway Used:</b>	4	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3500 ft / 50 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	3 Fatal	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 Fatal	<b>Latitude, Longitude:</b>	46.000293,-92.369445(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Malinowski, Edward
<b>Additional Participating Persons:</b>	Scott Myers; Federal Aviation Administration; Minneapolis, MN Robert P Martellotti; The New Piper Aircraft, Inc.; Burke, VA Gregory Erikson; Textron Lycoming; Wayne, IL
<b>Report Date:</b>	February 4, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=51730">https://data.nts.gov/Docket?ProjectID=51730</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).