



# Aviation Investigation Final Report

<b>Location:</b>	BURLINGTON, Wisconsin	<b>Accident Number:</b>	CHI99LA048
<b>Date &amp; Time:</b>	December 4, 1998, 12:25 Local	<b>Registration:</b>	N395AC
<b>Aircraft:</b>	Bellanca 8GCBC	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot said that he was in a visual descent to land when the airplane's engine lost most of its power. The pilot applied carburetor heat, but the engine lost more power. The pilot elected to perform an emergency landing on a lake. The pilot said that the lake was not long enough to stop the airplane before coming in contact with the shore. Examination of the airplane revealed no anomalies. Weather conditions reported at Kenosha, Wisconsin, 14 miles east-southeast of the accident site were overcast ceiling of 200 feet, 1 mile visibility, temperature 52 degrees Fahrenheit, and dew point 52 degrees Fahrenheit. According to the Department of Transportation/Federal Aviation Administration/CT-82/44 Publication: Light Aircraft Piston Engine Carburetor Ice Detector/Warning Device Sensitivity/ Effectiveness, June 1982, Carburetor Icing Probability Chart; these conditions places the probability for carburetor icing in the 'serious icing at cruise power' area of the chart.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Carburetor ice, the pilot's inadequate pre-flight planning/preparation resulting in his flight into poor weather conditions, and the pilot's improper use of carburetor heat. Factors contributing to this accident were the carburetor icing conditions, the rising embankment at the shoreline and the trees.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CLIMB

### Findings

1. (C) FUEL SYSTEM, CARBURETOR - ICE
2. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
3. (C) CARBURETOR HEAT - IMPROPER USE OF - PILOT IN COMMAND
4. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY DESCENT/LANDING

### Findings

5. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT
6. (F) OBJECT - TREE(S)

## Factual Information

On December 4, 1998, at 1225 central standard time (cst), a Bellanca 8GCBC, N395AC, operated by a commercial pilot, lost engine power while the airplane was in cruise flight. During the subsequent forced landing to a lake, the airplane was substantially damaged when it skipped off of the water and impacted into trees which lined the shore. Instrument meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under 14 CFR Part 91. There was no flight plan on file. The pilot reported no injuries. The cross-country flight originated at Rochester, Indiana, at 1100 cst, and was en route to Rochester, Wisconsin.

In his written statement, the pilot said that he was in a visual descent to land at the Fox River Airport, Rochester, Wisconsin, when the airplane's engine lost most of its power. The pilot said that he applied carburetor heat, but the engine lost more power. The pilot elected to perform an emergency landing on an unknown lake. The pilot said that the lake was not long enough to stop the airplane before coming in contact with the shore.

A Federal Aviation Administration (FAA) inspector examined the airplane at the accident site. The airplane was resting upright in a wooded area approximately 20 feet inland from the shore of a small lake. The airplane's right wing was bent aft and the trailing edge was twisted downward. The right rear cabin window was broken inward. The airplane's left wing was bent aft. The outboard 2 feet of the left wing and wing tip were bent upward approximately 40 degrees. Flight control continuity was confirmed. Examination of the airplane's engine, engine controls, and other airplane systems revealed no anomalies.

Weather conditions reported at Kenosha, Wisconsin, 14 miles east-southeast of the accident site, at 1129 cst, were overcast ceiling of 200 feet, 1 mile visibility, temperature 52 degrees Fahrenheit, and dew point 52 degrees Fahrenheit. According to the Department of Transportation/Federal Aviation Administration/CT-82/44 Publication: Light Aircraft Piston Engine Carburetor Ice Detector/Warning Device Sensitivity/Effectiveness, June 1982, Carburetor Icing Probability Chart; these conditions places the probability for carburetor icing in the "serious icing at cruise power" area of the chart.

## Pilot Information

<b>Certificate:</b>	Airline transport; Commercial	<b>Age:</b>	43, Male
<b>Airplane Rating(s):</b>	Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical—no waivers/lim.	<b>Last FAA Medical Exam:</b>	November 1, 1998
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5000 hours (Total, all aircraft), 500 hours (Total, this make and model), 75 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bellanca	<b>Registration:</b>	N395AC
<b>Model/Series:</b>	8GCBC 8GCBC	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	395-98
<b>Landing Gear Type:</b>	Amphibian	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	August 8, 1998 Annual	<b>Certified Max Gross Wt.:</b>	2150 lbs
<b>Time Since Last Inspection:</b>	3 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	98 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360-C1G
<b>Registered Owner:</b>	SEAIR, INC.	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	ENW ,721 ft msl	<b>Distance from Accident Site:</b>	14 Nautical Miles
<b>Observation Time:</b>	12:29 Local	<b>Direction from Accident Site:</b>	110°
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	1 miles
<b>Lowest Ceiling:</b>	Overcast / 200 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	40°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	11°C / 11°C
<b>Precipitation and Obscuration:</b>	N/A - None - Rain		
<b>Departure Point:</b>	ROCHESTER , IN (RCR )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(96C )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:00 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	42.670726,-88.269943(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Bowling, David
<b>Additional Participating Persons:</b>	EDWARD STACONIS; MILWAUKEE , WI
<b>Original Publish Date:</b>	May 19, 1999
<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=45411">https://data.nts.gov/Docket?ProjectID=45411</a>

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