

# **Aviation Investigation Final Report**

Location:	Unknown, Michigan	Accident Number:	CHI03FAMS1
Date & Time:	November 10, 2002, 18:16 Local	<b>Registration:</b>	N7091M
Aircraft:	Cessna 175	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

## Analysis

The airplane is missing. The airplane has not been located. The pilot is missing. The passenger's body was located in Lake Michigan almost a month after the accident. The last known departure point was Fond du Lac, Wisconsin. According to information provided in a flight service station briefing earlier in the day, the final destination for the flight was Beaver Island, Michigan. The last radar data on the airplane was over Lake Michigan south of Fairport, Michigan. The Coast Guard and the Civil Air Patrol searched for the airplane to no avail. Two AIRMETS were valid for the area of the last radar contact. One AIRMET warned of occasional low overcast ceilings less than 1,000 feet and visibility below 3 miles in stratus, precipitation, and mist. The other AIRMET warned of occasional moderate rime or mixed icing in clouds and in precipitation above the freezing level to 20,000 feet. The freezing level was identified near 4,000 feet over the northwest portion of the advisory area and rose to near 12,000 feet over the southern portion of the region.

## **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Undetermined. Missing aircraft.

**Findings** 

Occurrence #1: MISSING AIRCRAFT Phase of Operation: UNKNOWN

Findings 1. WEATHER CONDITION - LOW CEILING 2. LIGHT CONDITION - NIGHT

## **Factual Information**

#### HISTORY OF FLIGHT

On November 10, 2002, at about 1816 central standard time, a Cessna 175, N7091M, dropped out of radar coverage over Lake Michigan south of Fairport, Michigan. Both the US Coast Guard and the Civil Air Patrol conducted a search for the airplane. The airplane remains missing and presumed to have been substantially damaged. It is presumed that the pilot was fatally injured. The passenger's body was located on December 7, 2002. The Title 14 CFR Part 91 personal flight was operating in marginal visual flight rules weather conditions and there was no flight plan on file. The airplane last departed Fond Du Lac (FLD), Wisconsin, around 1645, en route to Beaver Island, Michigan.

The manager at the Manistique-Schoolcraft Airport (ISQ), Manistique, Michigan, stated that the pilot landed there at the airport on November 7, 2002. He stated the airplane was fueled with 28.4 gallons of 100LL aviation fuel. The fuel receipt, provided by the manager, was time stamped at 12:24. He stated the airplane was on the ground only long enough to receive the fuel. The manager stated he was familiar with the pilot and N7091M, as the pilot frequently flew into the airport. He stated that in the past, the pilot had mentioned to him that he did not like flying over the water. The manager stated that whenever the airplane landed in Manistique after crossing the water, the passengers were always wearing floatation devices.

Records indicate the N7091M was fueled at FLD, on November 7, 2002. The fuel receipt shows N7091M received 19.8 gallons of fuel. This receipt is time stamped 04:05 pm, however, the airport manager stated the time was actually 03:05 pm, as the clock had not yet been adjusted to standard time.

The next record of N7091M that was located was at the Lee C. Fine Memorial Airport (AIZ), Lake Ozark, Missouri. The activity log for the airport shows that N7091M landed there on November 8, 2002, at 1145. The fuel log at the airport shows the airplane was fueled with 29 gallons of fuel.

The activity log for AIZ shows N7091M departed the airport on November 10, 2002, at 0825.

A fuel receipt from the Illinois Valley Regional Airport (VYS), Peru, Illinois, shows N7091M was fueled with 29.56 gallons of fuel on November 10, 2002. This receipt is time stamped 1224. Another receipt shows the pilot also purchased oil. The lineman who was on duty at the time of the refueling stated he did not recall the airplane or its occupants.

Another receipt from FLD showed N7091M received 15.1 gallons of fuel on November 10, 2002. This receipt is time stamped 04:41 pm. Again the manager stated the time was actually

03:41 pm. The line man who fueled the airplane recalled the event. He stated the pilot told him that he was returning from a Marine Corp Ball in Ozark, Missouri. He stated the fuel added topped off the fuel tanks and the pilot also checked the oil level. The lineman stated the pilot did not seem to be in a hurry and that he appeared to be in good health. He reported it was just about dark outside when the airplane departed around 1645.

The Department of the Air Force/Civil Air Patrol initiated their search on November 11, 2002, at 1027. The search was suspended on November 25, 2002, at 0825.

#### PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with airplane single engine land, multi-engine land, instrument airplane, and airplane single engine sea ratings. He held a third-class medical certificate, which was issued on December 28, 2001. The last medical certificate contained the restriction "Must wear corrective lenses for near and distant vision while exercising the privileges of his airmen certificate."

The pilot's logbooks were not located during this investigation. On the application for his last medical certificate, the pilot reported having 4,000 hours of flight time, 50 hours of which were in the last 6 months.

#### AIRCRAFT INFORMATION

The airplane was a 1958 Cessna 175, serial number 55391. The airframe logbooks were not located during this investigation. It could not be determined when the last inspection was performed on the airplane. Records located indicate the airplane was refueled with 15.1 gallons of 100LL aviation fuel at the Fond du Lac County Airport, Fond du Lac, Wisconsin, at 1641, on the day of the accident. The person who fueled the airplane reported that this amount of fuel filled up the fuel tanks.

The engine was a 175 horsepower Continental GO-300 engine. The engine logbooks were not located during this investigation. It could not be determined when the last inspection was performed on the engine.

The last know radar position of N7901M was on November 10, 2002, at 1815:50. The position of the last radar target was Latitude 45:36:34 N, Longitude 086:35:30 W.

The airplane was registered to the pilot's wife, who was the passenger on board the airplane at the time of the accident. The registration certificate was issued on April 12, 2001.

#### METEOROLOGICAL INFORMATION

At 1405, a person providing the aircraft registration number of N7091M, contacted the Kankakee Automated Flight Service Station (AFSS) stating they were flying under visual flight

rules (VFR) and they were trying to get to Beaver Island, Michigan. This person reported they departed from Missouri, and "we hit IFR just north of here and had to come back", and they were currently "stuck" at the Illinois Valley Regional Airport. The caller stated they were trying to determine if it was better fly up through Michigan or to go up through Wisconsin to get to Beaver Island.

The AFSS briefer reported that VFR flight was not recommended, but that the weather may change across Wisconsin and Lake Michigan. The briefer informed the caller about an Airmen's Meteorological Information (AIRMET) for Instrument Flight Rule conditions and turbulence. The briefer informed the caller of the cold fronts moving through the area and the weather associated with those fronts. The briefer provided the caller with the weather at Illinois Valley, Waukesha, Wisconsin; Fond du Lac, Wisconsin; Manitowoc, Wisconsin; Rochelle, Illinois; and Muskegon, Michigan.

A weather observation station, located at the Delta County Airport, Escanaba, Michigan, about 22 nautical miles (nm) west-northwest of the last radar return, recorded their 1815 observation as:

Wind:350 degrees at 8 knots, direction variable from 320 degrees to 020 degreesVisibility:10 statute milesSky Condition:800 feet broken1,500 feet overcastTemperature:4 degrees CelsiusDew Point:3 degrees CelsiusPressure:29.47 inches of mercury

A weather observation station, located at ISQ, about 28 nm northeast of the last radar return, recorded their 1815 observation as:

Wind:	330 degrees at 12 knots, gusting to 20 knots		
Visibility:	10 statute miles		
Sky Condition	n: 800 feet overcast		
Temperature:4 degrees Celsius			
Dew Point:	2 degrees Celsius		
Pressure:	29.43 inches of mercury		

The National Weather Service (NWS) Analysis Chart for 0000Z (1800), depicted a low pressure system along a cold front over eastern Michigan bordering Lake Huron. The cold front extended southeastward across central Michigan through Indiana, southern Illinois, to southeast Missouri, and continuing off the chart through eastern Texas. A squall line extending from Lake Erie southwestward through western Tennessee was depicted ahead of the cold front. Behind the cold front in the vicinity of the last known position of N7091M was a trough of low pressure which extended from Lake Michigan westward through Wisconsin and southern Minnesota.

The NWS Weather Depiction Chart for 0100Z (1900), showed an area of instrument flight rules (IFR) conditions that extended over northern Iowa, Minnesota, Wisconsin, and Michigan. Surrounding this area was another area of marginal visual flight rules conditions across the majority of Iowa, Minnesota, northern Wisconsin, Michigan, northeast Illinois, Indiana, Kentucky, and Tennessee. Visual flight rules conditions were depicted over Missouri, the majority of Illinois, and southern Wisconsin.

A NWS Radar Summary Chart for 0015Z (1815), showed a large band of echoes over eastern Michigan extending south and southwest through Tennessee associated with a squall line. This area contained thunderstorms and had several current tornado watches. Several other ands of echoes identified with rain showers and snow showers were depicted over Minnesota, Wisconsin, Iowa, and Illinois. One small area of rain and rain showers was immediately south of the last known position of N7901M.

AIRMET Sierra update number 5 was issued at 2036Z (1436) and was valid until 0300Z (2100) for portions of North Dakota, South Dakota, Minnesota, Wisconsin, Michigan, Illinois, Lake Superior, Lake Michigan, and Lake Huron. The advisory warned of occasional low overcast ceilings less than 1,000 feet and visibility below 3 miles in stratus, precipitation, and mist. These conditions were expected to continue beyond 0300Z through 0900Z (0300).

AIRMET Zulu update 3 was also issued at the same time and included portions of Missouri, Wisconsin, Michigan, Illinois, Indiana, Lake Michigan, Lake Huron, Oklahoma, and Arkansas. This advisory warned of occasional moderate rime or mixed icing in clouds and in precipitation above the freezing level to 20,000 feet. The freezing level was identified near 4,000 feet over the northwest portion of the advisory area and rose to near 12,000 feet over the southern portion of the region. These conditions were expected to continue beyond 0300Z through 0900Z (0300).

#### WRECKAGE AND IMPACT INFORMATION

The wreckage has not been located as of the date of this report.

### **Pilot Information**

Certificate:	Commercial	Age:	55,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	December 28, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	4000 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N7091M
Model/Series:	175	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	55391
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:		Engine Model/Series:	GO-300-A
Registered Owner:	Judy E. Bellamy	Rated Power:	175 Horsepower
Operator:		Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
conditions at Accident Site.		Condition of Light.	Night
Observation Facility, Elevation:	ESC,609 ft msl	Distance from Accident Site:	
Observation Time:	18:15 Local	Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 800 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.46 inches Hg	Temperature/Dew Point:	4°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fond Du Lac, WI (FLD )	Type of Flight Plan Filed:	None
Destination:	Beaver Island, MI	Type of Clearance:	None
Departure Time:	16:15 Local	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	2 Fatal	Latitude, Longitude:	

#### **Administrative Information**

Investigator In Charge (IIC):	Sullivan, Pamela	
Additional Participating Persons:	Dan Moore; FAA; Grand Rapids, MI	
Original Publish Date:	April 28, 2004	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=56065	

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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 <u>here</u>.