



# Aviation Investigation Final Report

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<b>Location:</b>	NEWTON, Iowa	<b>Accident Number:</b>	CHI99FA147
<b>Date &amp; Time:</b>	May 9, 1999, 10:05 Local	<b>Registration:</b>	N96876
<b>Aircraft:</b>	Taylorcraft BC-12D	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

Witnesses reported that the aircraft was circling a relative's home between 500 and 800-feet above ground level. These witnesses said the airplane pitched up steeply, rolled to the left, then pitched down steeply. The witnesses said the airplane appeared to spin and then collided with the terrain in a steep nose down attitude. The on-scene investigation revealed flight control continuity and no anomalies with the engine that would prevent power development. The airplane was not equipped with a shoulder harness.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the pilot to maintain flying speed resulting in a stall and spin into the ground.

## Findings

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING

Findings

1. (C) AIRSPEED(V1) - NOT MAINTAINED - PILOT IN COMMAND

2. (C) STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

On May 9, 1999, at 1005 central daylight time, a Taylorcraft BC-12D, N96876, piloted by a commercial pilot, collided with the terrain following a loss of control in flight and an uncontrolled descent. Visual meteorological conditions prevailed at the time of the accident. The personal 14 CFR Part 91 flight was not operating on a flight plan. The pilot was fatally injured. The flight departed East Moline, Illinois, exact time unknown.

The Jasper County Sheriff's Report stated that the pilot had flown to Newton to attend a family get together and by previous arrangement the pilot would circle his residence and family members would meet the pilot at the Newton Municipal airport. One of the family members said the aircraft flew north, rocked his wings, saying "Hi" and circled the house. This witness said "After that, as the plane was flying north, it proceeded to go up at about a 45 degree angle. It 'appeared' to stall. The plane then either went left or right and 'spiraled' into the ground."

### OTHER WITNESSES

One witness said the "Yellow plane buzzed over, turned came back over climbed straight up, nosed over, came down never pulled out, crashed in field."

Another witness said "Aircraft circled once over head, the second pass around it went straight up stalled and spun and hit ground. Never pulled out of spin."

Another witness observed "The airplane proceeded in a northerly direction and nose went up and right wing went high and the plane stalled (slow speed)...the maneuver almost appeared to be what is commonly called a 'hammerhead'. The airplane went nose down and turned 1 to 1 1/2 revolutions before it impacted the ground."

### PERSONNEL INFORMATION

The pilot held a Commercial Pilot's Certificate in Single Engine land and Sea Ratings and an Instrument Airplane Rating. The pilot had in excess of 925 flight hours.

### AIRCRAFT INFORMATION

The last annual inspection noted in the aircraft logbook was on January 2, 1998, at a total aircraft time of 1727 hours with the engine recording 529.0 hours since major overhaul..

### WRECKAGE

The wreckage was located about 1/2 mile south of Newton on S74 and 1/4 mile west in a field. The on scene inspection by NTSB investigators revealed flight control continuity. No anomalies with the engine were found that would prevent power development.

See attached photographs of accident scene.

### SURVIVAL FACTORS

The Chief Deputy of the Jasper County Sheriff's Office wrote in his report: "I made contact with Dr. Francis Garrity, Deputy State Medical Examiner ... He asked me if the plane was equipped with shoulder harness. I told him 'no' and told him about a question had been raised that the victim might not have had his lap belt fastened. Dr Garrity told me that that might be consistent to his observations, as he did not detect bruising consistent with lap belt use on the body."

### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was conducted by the Deputy State Medical Examiner/Pathologist from Des Moines, Iowa.

FAA toxicology testing of samples taken from the pilot were negative for ethanol, cyanide, and carbon monoxide. Theophylline was detected in the blood and liver fluid.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	May 22, 1998
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	925 hours (Total, all aircraft), 865 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Taylorcraft	<b>Registration:</b>	N96876
<b>Model/Series:</b>	BC-12D BC-12D	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	9176
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	January 2, 1998 Annual	<b>Certified Max Gross Wt.:</b>	1200 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1727 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>		<b>Engine Model/Series:</b>	A-65-8
<b>Registered Owner:</b>		<b>Rated Power:</b>	65 Horsepower
<b>Operator:</b>	MARK F. CRISWELL	<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>	Day
<b>Observation Facility, Elevation:</b>	DSM	<b>Distance from Accident Site:</b>	30 Nautical Miles
<b>Observation Time:</b>	09:54 Local	<b>Direction from Accident Site:</b>	254°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	7 miles
<b>Lowest Ceiling:</b>	Broken / 1500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.09 inches Hg	<b>Temperature/Dew Point:</b>	10°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	EAST MOLINE, IL (C95)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	NEWTON, IA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class C

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<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 Fatal	<b>Latitude, Longitude:</b>	41.690887,-93.040298(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gattolin, Frank
<b>Additional Participating Persons:</b>	LARRY YOUNG; FAA; DES MOINES, IA
<b>Original Publish Date:</b>	June 3, 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.ntsb.gov/Docket?ProjectID=46292">https://data.ntsb.gov/Docket?ProjectID=46292</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).