National Transportation Safety Board
Aviation Accident Final Report

Location:	BELOIT, KS	**Accident Number:**	CHI00FA234
Date & Time:	08/02/2000, 0932 CDT	**Registration:**	N2732Q
Aircraft:	Piper PA-28R-201	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

A witness traveling south on Kansas State Highway 14 from Beloit, Kansas, said he saw the airplane "flying very low, north of the highway, like the pilot was trying to land. The plane then rose rapidly when it got close to the highway, as if to rise above the power lines. The plane made an abrupt dive and crashed into a field at a sharp angle." Airplane records showed the pilot's last flight in the airplane was on May 1, 1999. Federal Aviation Administration medical records indicated the pilot's last medical certificate was issued on August 31, 1994. An examination of the airplane revealed no anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the inadvertent stall. Factors relating to the accident were the pilot's low altitude, his abrupt pull up, the power lines, and his lack of recent flying experience.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings
1. (C) STALL - INADVERTENT - PILOT IN COMMAND
2. (F) LACK OF RECENT EXPERIENCE - PILOT IN COMMAND
3. (F) ALTITUDE - LOW - PILOT IN COMMAND
4. LACK OF CERTIFICATION - PILOT IN COMMAND
5. (F) OBJECT - WIRE,TRANSMISSION
6. (F) PULL-UP - ABRUPT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On August 2, 2000, at 0932 central daylight time (cdt), a Piper PA-28R-201, N2732Q, operated by a private pilot, was destroyed when it impacted the terrain, 6 miles north of Beloit, Kansas. Visual 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 sustained fatal injuries. The local flight originated at Beloit, Kansas.

A witness, who worked at the Beloit Airport, said he arrived at the airport at 0645 cdt. The pilot's hanger was open and the airplane was gone. The witness said that at approximately 0815 cdt, he heard the airplane approaching the airport. The witness said he saw the airplane approach from the northeast and then turn south bound. He estimated the airplane was at 2,000 to 3,000 feet agl. "The airplane made a left turn over the town and then flew straight north. He crossed Highway 24 at the Super Eight [hotel], turned left and went west. About 1 to 2 miles west of the runway, he turned northwest toward the Cawker City. That was the last I saw of him."

A witness traveling south on Kansas State Highway 14 from Beloit, said at approximately 0930 cdt, he saw the airplane "flying very low, north of the highway, like the pilot was trying to land. The plane then rose rapidly when it got close to the highway, as if to rise above the power lines. The plane made an abrupt dive and crashed into a field at a sharp angle."

PERSONNEL INFORMATION

The pilot held a private pilot certificate with a single-engine land airplane rating.

According to Federal Aviation Administration (FAA) aeromedical records, at the pilot's last flight physical examination on August 31, 1994, the pilot reported having logged 450 hours.

An airplane logbook which kept a record on all of the flight activity in the airplane, showed that the last flight the pilot made in N2732Q was on May 1, 1999. The logbook showed the pilot took off from Beloit, flew to Topeka, Kansas, and then flew back to Beloit, logging 2.1 flying hours.

A witness, who knew the pilot, said that he had flown with the pilot in N2732Q approximately one year earlier. The witness said that he (the witness) did all of the flying during that flight. The witness said that the pilot told him that he had "300 to 400 total flying hours." The witness said that he had been operating out of the Beloit Airport since the middle of March, 2000. The witness said in the time, from March, 2000, to the accident, he never saw the pilot fly the airplane.

The last flight physical examination record on the pilot was reported to have occurred on August 31, 1994. At that time, the pilot was issued a second class medical certificate with restrictions stating the "holder shall wear corrective lenses while exercising the privileges of his airman certificate for distance vision."

AIRCRAFT INFORMATION

The airplane was owned and operated by the pilot's father's industrial company. The airplane was used for business and for pleasure.

The airplane underwent an annual inspection on May 5, 2000. According to the airframe

logbooks, the airplane's total time, at the annual inspection, taken from the tachometer, was 3,125.01 hours.

The last flight recorded in an airplane logbook which kept a record on all of the flight activity in the airplane, showed a flight on August 1, 2000, from Beloit to Smith Center, Kansas. The time recorded for the flight was 1.4 hours. The total time recorded at the end of the August 1, 2000, flight was 3,150.4 hours.

The airplane's tachometer read 3,152.90 hours, at the time of the accident.

METEOROLOGICAL CONDITIONS

At 0953 cdt, the weather surface observation for the Salina Municipal Airport, Salina, Kansas, 56 miles southeast of the accident site, was clear skies, 10 miles visibility, temperature 79 degrees F, dew point 62 degrees F, winds 210 degrees at 8 knots, and an altimeter setting of 30.01 inches of Mercury.

WRECKAGE AND IMPACT INFORMATION

The National Transportation Safety Board on-scene investigation began on August 3, 2000, at 0630 cdt.

The accident site was located 270 feet south of an east-to-west running section of Kansas State Highway 14, a predominately north-south running two-lane, paved highway. The highway section succeeded a curve in the road which began 6 miles north of the town of Beloit, Kansas.

The accident site began with an 8-foot long (north-to-south), 26- foot wide (east-to-west), ground scar which resembled the silhouette of an airplane. The silhouette was oriented on a 175 degree magnetic heading. The ground scar was 10 inches at its deepest point at the center, near the north edge. Several pieces of the airplane's bottom fuselage and two seat rails were embedded 20 inches deep in the ground, at the center of the ground scar. The left main landing gear door was located approximately 5 feet east of the embedded seat rails. The right main landing gear door was located 6 feet west and slightly south of the embedded seat rails. A dirt spray pattern extended south from the south edge of the ground scar along a 175 degree magnetic heading, for approximately 14 feet.

A debris field, containing pieces of fiberglass, clear Plexiglas, and aluminum fanned outward from the south edge of the ground scar in a 70-degree cone, for approximately 70 feet.

One of the airplane's two propeller blades (to be referred to as Blade "A") was located 16 feet from the south edge of the ground scar on a 175 degree magnetic heading. The blade was broken out at the hub and showed slight torsional bending and chordwise scratches near the front propeller tip. The back of the blade showed numerous longitudinally running scratches running from the hub to the blade tip.

A 12-inch piece of the trailing edge of the airplane's right wing tip was located 24 feet from the south edge of the ground scar on a 210 degree magnetic heading. The tip piece was broken laterally and longitudinally along the rivet line.

A second ground scar was located 41 feet south of the first ground scar. It was 10 feet long (north-to-south), 5 feet wide, and 12 inches at its deepest point. The ground scar was oriented on a 172 degree magnetic heading. A folded piece of carpet was found resting at the center of the second ground scar.

The top of the airplane's cowling was located 58 feet from the south edge of the first ground scar on a 178 degree magnetic heading. The cowling was broken open and crushed aft.

The airplane's main wreckage was located 70 feet south of the first ground scar on a 175 degree magnetic heading. The main wreckage was resting upright and was oriented on a 137 degree magnetic heading. The main wreckage consisted of the engine, remainder of the propeller, the cabin section, the left and right wings, the fuselage, and the empennage.

The airplane's lower cowling was broken out and shattered. The engine was bent left and downward, and was twisted approximately 70 degrees counter-clockwise. The airplane's spinner was crushed inward and aft on one side. The propeller hub was broken. Propeller blade B showed torsional bending, and longitudinally- running and chordwise-running scratches.

The left and right windscreen panes were broken out. The firewall and engine mounts were bent and broken downward to the left and aft. The instrument panel was crushed downward and aft.

The front cabin floor was crushed upward and aft. The left front cabin wall was crushed aft and inward. The left front and rear windows were broken out. The right side cabin door was buckled outward and bent aft. The door window was broken out. The remaining right side cabin wall and baggage door were bent aft and buckled outward. The aft cabin floor and baggage compartment floor were crushed upward and aft. Crush angle measurements taken from the fuselage showed a 57-degree down-angle from the longitudinal axis of the airplane.

The airplane's left wing was crushed upward and aft along the span of the leading edge. The inboard 26 inches left wing containing the left wing fuel tank, beginning near the wing root and proceeding outward along the leading edge, was hydro-formed outward and broken open. The wing skin beneath the fuel tanks was buckled aft and outward. The outer wing leading edge, beginning approximately 82 inches out from the wing root and running to the tip, was crushed inward and aft. The top wing skin showed deep aft-running wrinkles. The bottom wing skin was buckled outward and aft. The left wing tip was broken longitudinally along the rivet line. The front 12 inches of the tip, with the strobe and position lights, were broken out. The aft 13 inches of the tip was broken out laterally and longitudinally along the rivet line.

The left flap was intact and showed small inward bends at the hinges. The majority of the left aileron was undamaged. The outboard 11 inches of the left aileron's trailing edge was bent upward approximately 35 degrees. Flight control continuity to the left aileron was confirmed.

The airplane's right wing was crushed upward and aft along the span of the leading edge. The inboard 28 inches of the right wing, containing the fuel tank was hydro-formed outward and broken open. The top wing skin was broken laterally along a seam rivet line, 6 inches aft of the leading edge. The top wing skin aft of the lateral rivet seam, was buckled outward and crushed aft to the main spar. The wing skin beneath the fuel tank was crushed inward and aft. The outer wing leading edge, beginning approximately 84 inches out from the wing root and running to the tip, was crushed inward and aft. The top wing skin was bent aft and buckled. The bottom wing skin was crushed inward and bent aft. The right wing tip was broken off longitudinally along the rivet line. The wing tip was shattered. Pieces of the wing tip rested in several areas in the west side of the debris field, preceding the airplane's main wreckage. The right flap was attached and broken downward. Several inward bends were observed aft of the hinges. The right aileron was bent and buckled along its span. Flight control continuity to the

right aileron was confirmed.

The airplane's fuselage, aft of the cabin, was bent inward and buckled. The fin preceding the vertical stabilizer was crushed aft and broken. The airplane's empennage was predominately intact. The vertical stabilizer showed no damage. The rudder showed an 8-inch long outward bend in the trailing edge, approximately 13 inches down from the top. The horizontal stabilator and trim tab showed no damage. Flight control continuity to the stabilator and rudder was confirmed.

A debris field containing small pieces of fiberglass, clear Plexiglas, flight and navigation instruments, and engine components, fanned south and east of the main wreckage for approximately 14 feet.

An examination of the airplane's engine, engine controls, and remaining systems, revealed no anomalies.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was conducted at the Sedgwick County Regional Forensic Science Center, Wichita, Kansas, on August 3, 2000.

FAA toxicology testing of samples taken from the pilot were negative for all tests conducted.

TESTS AND RESEARCH

Federal Aviation Regulations, Part 61, paragraph 61.3 (c) "Medical Certificate" states, ... a person may not act as pilot- in-command or in any other capacity as a required pilot flight crewmember of an aircraft, ... unless that person has a current and appropriate medical certificate that has been issued under part 67 ... or other documentation acceptable to the Administrator, which is in that person's physical possession or readily accessible in the aircraft.

ADDITIONAL INFORMATION

Parties to the investigation were the FAA, the New Piper Aircraft Company, Incorporated, and Textron Lycoming.

The airplane wreckage was released and returned to United States Aviation Underwriters, Chicago, Illinois.

Pilot Information

Certificate:	Private	**Age:**	42, Male
Airplane Rating(s):	Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Expired	**Last FAA Medical Exam:**	08/31/1994
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	450 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N2732Q
Model/Series:	PA-28R-201 PA-28R-201	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	28R-7737041
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	05/05/2000, Annual	**Certified Max Gross Wt.:**	2750 lbs
Time Since Last Inspection:	28 Hours	**Engines:**	1 Reciprocating
Airframe Total Time:	3153 Hours	**Engine Manufacturer:**	Lycoming
ELT:	Installed	**Engine Model/Series:**	IO-360-C1C6
Registered Owner:	MORITZ IMPLEMENT CO, INC.	**Rated Power:**	200 hp
Operator:	MORITZ IMPLEMENT CO, INC.	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	SLN, 1272 ft msl	**Distance from Accident Site:**	56 Nautical Miles
Observation Time:	0953 CDT	**Direction from Accident Site:**	148°
Lowest Cloud Condition:	Clear / 0 ft agl	**Visibility**	10 Miles
Lowest Ceiling:	None / 0 ft agl	**Visibility (RVR):**	0 ft
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	79°C / 62°C
Precipitation and Obscuration:			
Departure Point:	(K61)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	0000	**Type of Airspace:**	Class E

Airport Information

Airport:	BELOIT AIRPORT (K61)	**Runway Surface Type:**	
Airport Elevation:	1416 ft	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	DAVID C BOWLING	**Report Date:**	09/19/2001
Additional Participating Persons:	JIM BADHORSE; WICHITA, KS ROBERT MARTELLOTTI; BURKE, VA MARK W PLATT; VAN NUYS, CA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		

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