



Aviation Investigation Final Report

Location:	Stevens Point, Wisconsin	Accident Number:	CHI01FA297
Date & Time:	August 30, 2001, 18:13 Local	Registration:	N3516R
Aircraft:	Beech A23	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was destroyed on impact with terrain during takeoff. A witness stated, "About 3' off the ground he wiggled a little as if he was a student pilot. Then he started to turn sideways with his right side low. It looked like his wing tip was about 20' off the ground. Still climbing he turned right at a real strong [angle], heading toward 21. It looked like his right wing tip was about 50' feet off the ground. At this point he flipped over on his back [and] than dove nose down to the ground. Time 6:13 Wind 250 Knots 6." The mechanics entry for the last recorded annual inspection stated, "I certify that this aircraft has been inspected in accordance with an annual inspection and was determined to be in airworthy condition except for [discrepancies] listed. -Leaking fuel tanks, loose door hinge." An on-scene investigation revealed no pre-impact anomalies. The cabin door remained attached to the fuselage at its hinges. The door's striker plate was found with its outboard side torn out. The fuselage behind the striker plate was found with a gouge. CAMI's toxicological report on the pilot was negative. The report on the passenger stated, "86 (mg/dL, mg/hg) ETHANOL detected in Blood, 91 (mg/dL, mg/hg) ETHANOL detected in Vitreous, 181 (mg/dL, mg/hg) ETHANOL detected in Urine, 1 (mg/dL, mg/hg) ACETALDEHYDE detected in Blood, 2 (mg/dL, mg/hg) ACETALDEHYDE detected in Vitreous."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot not obtaining/maintaining aircraft control.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF

Findings

1. (C) AIRCRAFT CONTROL - NOT OBTAINED/MAINTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On August 30, 2001, about 1813 central daylight time, a Beech A23, N3516R, operated by a private pilot, was destroyed on impact with terrain during takeoff from runway 30 (3,642 feet by 75 feet, dry, asphalt) at Stevens Point Municipal Airport (STE), near Stevens Point, Wisconsin. The personal flight was operating under 14 CFR Part 91 and no flight plan was on file. Visual meteorological conditions prevailed at the time of the accident. The pilot and two passengers were fatally injured. The local flight was originating from STE at the time of the accident.

A witness stated:

The Musketeer taxied down the taxiway and stopped. Waited about 10 min. By this time (Pegasus's) 182 RG radioed in that he was on final approach 30 Stevens Point. Right after that the Musketeer said he was back taxing 30 Stevens Point [and] pulled out. The 182 pulled up [and] said he would circle around. The Musketeer taxied down to the end of 30. Pulled off to the side [and] waited a few seconds. Then he said he was departing on runway 30 Stevens Point. He then proceeded to take off. About 3' off the ground he wiggled a little as if he was a student pilot. Then he started to turn sideways with his right side low. It looked like his wing tip was about 20' off the ground. Still climbing he turned right at a real strong [angle], heading toward 21. It looked like his right wing tip was about 50' feet off the ground. At this point he flipped over on his back [and] then dove nose down to the ground. Time 6:13 Wind 250 Knots 6

PERSONNEL INFORMATION

The pilot held a private pilot certificate with a single engine land rating. The pilot held a third class medical certificate with limitations for corrective lenses, dated January 8, 2001. According to Federal Aviation Administration (FAA) aeromedical records, the pilot reported having 560 total flying hours at that physical examination.

The passenger was a non-rated occupant of the airplane's left front seat.

AIRCRAFT INFORMATION

The accident airplane, N3516R, was a Beech A-23, Musketeer, serial number M-675, single-engine, low-wing airplane. Its engine was a 165 horsepower Continental IO-346-A engine, serial number 103026-8-A-R. Its propeller was a fixed pitch, two-bladed, Sensenich 74DC-0-60, with serial number A49554. The airplane contained a standard airworthiness certificate dated February 8, 1965. A review of the aircraft logbooks revealed a 100-hour inspection was completed on November 24, 2000 and an annual inspection was completed on January 5, 2001. The mechanics entry for that annual inspection stated, "I certify that this aircraft has been inspected in accordance with an annual inspection and was determined to be in airworthy condition except for [discrepancies] listed. -Leaking fuel tanks, loose door hinge." The engine logbook entry for November 24, 2000 revealed that the engine had accumulated 2,557.59 hours since overhaul. The airframe logbook entry on that date indicated that the airplane had accumulated 3,462.75 hours in service and its tachometer read 1,347.1 hours.

METEOROLOGICAL INFORMATION

At 1815, the STE weather was: Wind 260 degrees at 8 knots; visibility 10 statute miles; sky condition clear; temperature 24 degrees C; dew point 14 degrees C; altimeter 29.77 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

An on-scene investigation was conducted. The airplane's nose came to rest at latitude 44 degrees 32.773 minutes N and longitude 89 degrees 31.776 minutes W. A linear ground scar was found with a heading of 198 degrees as viewed from the wreckage. The start of the scar was about 63 feet from the wreckage. A piece of white plastic was found at the start of the scar. That piece of plastic mated to the piece of wing tip retained on the right wing. The propeller was impacted in soil near the scar about 38 feet from the wreckage. A detached section of engine cowling was found near the scar 26 feet from the wreckage. Red colored media was found near the scar 13 feet from the wreckage. The fuselage came to rest nose down about 30 degrees from vertical. The right wing's rear spar was found fractured. The right wing was found bent upward and forward. The cabin door remained attached to the fuselage at its hinges. The door's striker plate was found with its outboard side torn out. The fuselage behind the striker plate was found with a gouge. The empennage was found detached from the fuselage. The left wing was found attached to the fuselage and bent upward. Continuity was established to all flight control surfaces. Control continuity was established to the engine. The engine produced a thumb compression at all cylinders. Both magnetos produced spark. A blue fluid was found in both fuel tanks, in fuel lines between the fuel tanks and the fuel selector, in the fuel selector, and in the strainer. The engine driven fuel pump was able to pump a fluid when rotated by hand. The electric fuel pump was able to pump a fluid when electric current was applied. The propeller shaft was found fractured and its flange was retained on the propeller. A propeller blade was found with an s shaped bend and chordwise abrasion on its leading edge and back. The tachometer read 1355.58 hours on-

site. See appended photographs.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot and the passenger occupying the left seat by the Office of Coroner, Portage County, Wisconsin.

The following pertinent medical information was extracted by the NTSB Chief Medical Officer from the report of autopsy performed for the Office of the Coroner, Portage County, Wisconsin, on the non-pilot left front seat occupant.

Under "EVIDENCE OF INJURY" is noted:

UPPER EXTREMITIES - On the right wrist is a 7.0 cm laceration.

On the right elbow is a 10.0 cm laceration. On the left hand are multiple lacerations. The left ulna and radius are fractured.

LOWER EXTREMITIES - There are three lacerations of the right leg, two of the thigh measuring up to 5.0 cm and one of the knee measuring 3.0 cm. There are multiple abrasions also present. The right femur is fractured. There are two bulging bony deformities of the dorsal right foot measuring up to 4.0 cm with the appearance of pre-existing abnormalities. There is a 4.0 cm laceration of the left knee.

The following pertinent medical information was extracted by the NTSB Chief Medical Officer from the report of autopsy performed for the Office of the Coroner, Portage County, Wisconsin, on the pilot right front seat occupant.

Under "EVIDENCE OF INJURY" is noted:

UPPER EXTREMITIES - The right arm has multiple superficial abrasions. On the posterior right forearm is an 8.0 cm laceration. The left arm has multiple superficial abrasions. On the posterior left forearm are four lacerations measuring up to 9.5 cm. On the left hand are multiple lacerations measuring up to 6.0 cm.

LOWER EXTREMITIES - The right leg shows multiple superficial abrasions with a fractured femur and ankle. There is a 4.5 cm laceration of the anterior right lower leg. The left leg has multiple superficial abrasions and a fractured femur.

The FAA Civil Aeromedical Institute prepared a Final Forensic Toxicology Accident Report. The report on the pilot was negative. The report on the passenger in the left seat stated:

86 (mg/dL, mg/hg) ETHANOL detected in Blood

91 (mg/dL, mg/hg) ETHANOL detected in Vitreous
 181 (mg/dL, mg/hg) ETHANOL detected in Urine
 1 (mg/dL, mg/hg) ACETALDEHYDE detected in Blood
 2 (mg/dL, mg/hg) ACETALDEHYDE detected in Vitreous

ADDITIONAL INFORMATION

The parties to the investigation included the FAA, Teledyne Continental Motors, and Raytheon Aircraft Corporation.

The aircraft wreckage was released to a representative of STE.

A section of FAA Federal Aviation Regulation part 91 stated:

91.17 Alcohol or drugs.

(a) No person may act or attempt to act as a crewmember of a civil aircraft --

(1) Within 8 hours after the consumption of any alcoholic beverage;

(2) While under the influence of alcohol;

(3) While using any drug that affects the person's faculties in any way contrary to safety; or

(4) While having .04 percent by weight or more alcohol in the blood.

(b) Except in an emergency, no pilot of a civil aircraft may allow a person who appears to be intoxicated or who demonstrates by manner or physical indications that the individual is under the influence of drugs (except a medical patient under proper care) to be carried in that aircraft.

Pilot Information

Certificate:	Private	Age:	73, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	January 8, 2001
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	560 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N3516R
Model/Series:	A23	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	M-675
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	January 5, 2001 Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:	8.48 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3462.75 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-346-A
Registered Owner:	Muscateer Ltd.	Rated Power:	165 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	STE,1110 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	18:15 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.77 inches Hg	Temperature/Dew Point:	24°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Stevens Point, WI (STE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	18:13 Local	Type of Airspace:	Class G

Airport Information

Airport:	STEVENS POINT MUNI STE	Runway Surface Type:	Asphalt
Airport Elevation:	1110 ft msl	Runway Surface Condition:	Dry
Runway Used:	30	IFR Approach:	None
Runway Length/Width:	3642 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	44.539985,-89.559593(est)

Administrative Information

Investigator In Charge (IIC):	Malinowski, Edward
Additional Participating Persons:	Norman P Widen; Federal Aviation Administration; Milwaukee, WI John T Kent; Teledyne Continental Motors; Seagoville, TX Paul E Yoos; Raytheon Aircraft Company; Wichita, KS
Original Publish Date:	April 23, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=53148

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](#).