



Aviation Investigation Final Report

Location:	MANDAN, North Dakota	Accident Number:	CHI99FA196
Date & Time:	June 25, 1999, 21:30 Local	Registration:	N9703Q
Aircraft:	Beech C-23	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

the flight encountered moderate turbulence enroute to the destination airport and in the vicinity of the airport there were thunderstorms, turbulence, high winds, and heavy rain upon the aircraft's arrival. A witness who lives in the vicinity of the airport said the aircraft was pitching up and down and rolling left and right violently. The aircraft struck the ground before reaching the airport.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot failed to maintain aircraft control on approach to the airport after encountering high winds, gusts, rain, and thunderstorms in the area.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE - NORMAL

Findings
1. WEATHER CONDITION - TURBULENCE

Occurrence #2: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: APPROACH

Findings

2. (F) WEATHER CONDITION - GUSTS
3. (F) WEATHER CONDITION - THUNDERSTORM
4. (F) WEATHER CONDITION - TURBULENCE
5. (F) WEATHER CONDITION - RAIN

Occurrence #3: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: APPROACH

Findings

6. (F) WEATHER CONDITION - TURBULENCE
7. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
8. (F) WEATHER CONDITION - RAIN

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On June 25, 1999, at 2130 central daylight time, a Beech C-23, N9703Q, piloted by a private pilot, was destroyed during a collision with the ground following a loss of control in flight. Witnesses reported instrument 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 Aberdeen, South Dakota, exact time unknown.

Two witnesses reported seeing the airplane flying about 1 mile northeast of the Mandan Municipal Airport during a heavy rain storm. They said the airplane's landing lights were illuminated and that the sky was black with lightening coming from the clouds. Both witnesses said the rain was very heavy and blowing almost horizontally. One of the witnesses said she saw the airplane pitching up and down and rolling left and right violently before losing sight of it due to very heavy rains. The second witness said the wind was very gusty and strong. He said the wind almost pushed his car off the road.

AIRCRAFT INFORMATION

The aircraft was a 1970 manufactured Beech C-23 with a Lycoming O-360-A2G 180hp engine. The aircraft and engine had an annual inspection on November 1, 1998 at a total aircraft time of 3791 hours.

On July 7, 1997, a gyro horizon, Part Number 5000B-20, Serial Number T36993J was installed in the aircraft. Tachometer time was 3681.6 hours on the FAA Form 8130-3 Airworthiness Approval Tag.

METEOROLOGICAL INFORMATION

A National Transportation Safety Board Meteorology Factual Report is an attachment to this report. On page 10 of this report, under the category of "Local Storm Reports" at 2127, on the date of the accident, 7 miles southwest of Mandan, ND, there was a 60 mile per hour wind gust report by ham radio skywatch spotter. At 2200 at Mandan, ND flooding of numerous streets and underpasses is reported. Bismarck, North Dakota, about 5 miles east of Mandan, at 2125 was reporting thunderstorm with heavy rain, visibility 1 3/4 miles, thunderstorms all quadrants moving northeast, lightning northwest-south-southeast.

COMMUNICATIONS

Below is a summary of communications with the Bismarck, ND FAA Air Traffic Control Tower:

2107 - N9703Q checked on with Bismarck approach approximately two five miles southeast of

the airport enroute Mandan airport.

2110 - N9703Q reports moderate turbulence.

2112 - Bismarck approach advises N9703Q of an area of weather currently over the Mandan Airport.

0216 - Bismarck approach advises N9703Q that the aircraft is entering an area of weather which extends all the way to the Mandan Airport.

0219 - N9703Q requests vectors to the Mandan Airport.

0223 - N9793Q reports the Mandan Airport in sight.

0223 - Bismarck approach terminates radar and approves frequency change to Mandan Unicom.

WRECKAGE AND IMPACT INFORMATION

N9703Q's ground impact location was in a field that had a grass and alfalfa mixture that was about 3 feet high. This vegetation was bent almost parallel to the ground about 300 feet around the impact point. N9703Q's wreckage trail went up a hill about 500 feet. The wreckage trail ended about 100 feet before the hill's crest. The trail began again about 75 feet from the hill's crest and continued for about another 550 feet on the downside of the hill (See attached photographs and wreckage diagram).

Inspection of the aircraft controls established cable continuity for all 3 flight control axis.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was completed by the State Forensic Medical Examiner, Bismarck, ND on June 28, 1999.

A Forensic Toxicology Fatal Accident Report was prepared by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma.

The toxicology results for the pilot were:

No Carbon Monoxide detected in blood.

No cyanide detected in blood.

No ethanol detected in vitreous.

No drugs detected in urine.

Pilot Information

Certificate:	Private	Age:	56,U
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
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:	October 6, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1100 hours (Total, all aircraft), 230 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N9703Q
Model/Series:	C-23 C-23	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	M-1303
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	November 1, 1998 Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3791 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	O-360-A4G
Registered Owner:		Rated Power:	180 Horsepower
Operator:	ABERDEEN FLYING CLUB, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	BIS,1661 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	21:25 Local	Direction from Accident Site:	110°
Lowest Cloud Condition:	Scattered / 5000 ft AGL	Visibility	1.75 miles
Lowest Ceiling:	Broken / 6500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	12 knots / 20 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.44 inches Hg	Temperature/Dew Point:	27°C / 23°C
Precipitation and Obscuration:	Heavy - None - Rain		
Departure Point:	ABERDEEN, SD (ABR)	Type of Flight Plan Filed:	None
Destination:	(Y19)	Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	46.820957,-100.880348(est)

Administrative Information

Investigator In Charge (IIC):	Gattolin, Frank
Additional Participating Persons:	JOHN KLINE; FAA; Fargo, ND Don Knutson; Raytheon; Wichita, KS
Original Publish Date:	July 1, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46671

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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 [here](#).