



Aviation Investigation Final Report

Location:	VIROQUA, Wisconsin	Accident Number:	CHI96LA346
Date & Time:	September 22, 1996, 12:15 Local	Registration:	N66338
Aircraft:	Beech B23	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that during the cross country flight the engine quit. She switched tanks and the engine ran for a few minutes and quit again. A forced landing was conducted in a rough field. A postaccident investigation revealed one quart of fuel drained from the entire airplane. The fuel tanks were intact and there was no evidence of leakage, siphoning or fuel stains. The engine ran successfully after the addition of fuel. The pilot thought the airplane was fueled prior to the accident flight, however there is no evidence that it was.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate aircraft preflight which led to fuel exhaustion. A factor was the rough uneven terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings

1. (C) FLUID,FUEL - EXHAUSTION
 2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

Findings

3. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On September 22, 1996, at 1215 central daylight time, a Beech B23, N66338, sustained substantial damage during a forced landing near Viroqua, Wisconsin, in rough terrain. The pilot said that the engine quit, after which she switched fuel tanks. The engine then ran for a few minutes and quit again. The pilot reported no injuries. The 14 CFR Part 91 personal flight was conducted in visual meteorological conditions. No flight plan was on file. The flight departed Champaign, Illinois, at 0924 with the intended destination of Lacrosse, Wisconsin.

The pilot stated that she asked that the fuel tanks be filled to the top prior to her departure from Champaign. She also indicated that during her preflight inspection she checked and found the tanks to be full.

Records at Champaign do not indicate any fueling of the accident airplane on the day of the flight. Records there indicate that the airplane flew twice on September 20, 1996, and that after those flights 11 gallons of fuel were added, which according to standard practice at the fueling point would have raised the fuel to a standard load of 35 gallons. The airplane then flew an additional 7/10 of one hour without refueling. The airplane did not fly again until the accident flight. Sources at Champaign indicate that they use 10 gallons per hour for fuel consumption calculations. According to their calculation the airplane should have departed on the accident flight with a total fuel load of 24 gallons. The "Hobbs" meter after the accident indicated a total time for the accident flight of 2.6 hours.

Examination of the airplane at the accident site revealed one quart of fuel drained from the airplane. There was no evidence of leakage, siphoning, or fuel stains on the airplane. Five gallons of fuel were added to the right fuel tank and the engine was started and ran within specifications.

Pilot Information

Certificate:	Private	Age:	18,Female
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:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	August 12, 1996
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	152 hours (Total, all aircraft), 49 hours (Total, this make and model), 87 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N66338
Model/Series:	B23 B23	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	M-2202
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 11, 1996 Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	16 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7032 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A4J
Registered Owner:	UNIVERSITY OF ILLINOIS	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KLS ,654 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	11:50 Local	Direction from Accident Site:	325°
Lowest Cloud Condition:	Scattered / 2700 ft AGL	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	18°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CHAMPAIGN (CMI)	Type of Flight Plan Filed:	None
Destination:	LACROSSE (LSE)	Type of Clearance:	None
Departure Time:	09:24 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.55096,-90.880126(est)

Administrative Information

Investigator In Charge (IIC): Wilson, Stephen

Additional Participating Persons: CHARLES A EBERT; MILWAUKEE , WI

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Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=10398>

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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](#).