



Aviation Investigation Final Report

Location:	NEENAH, Wisconsin	Accident Number:	CHI97LA005
Date & Time:	October 8, 1996, 10:10 Local	Registration:	N2398Z
Aircraft:	Beech 23	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During final approach the pilot slowed the airplane to avoid a red dump truck coming down the road. Following the first dump truck was a second grey and red dump truck. The left main gear tire of the airplane contacted the second dump truck. West of the airport there was a tree line and a cornfield near the road, where a lightly colored vehicle would be very difficult to see during final approach to the runway. The runway obstacle free zone was shorter than the recommended length.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the local terrain conditions around the airport. A factor was the inadequate runway safety area.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. (C) TERRAIN CONDITION - HIDDEN OBSTRUCTION(S)
2. (F) AIRPORT FACILITIES, RUNWAY SAFETY AREA - INADEQUATE
3. OBJECT - VEHICLE

Factual Information

On October 8, 1996, at 1010 central daylight time (cdt), a Beech BE23, N2398Z, was destroyed when the airplane collided with a dump truck. The aircraft was attempting to land on runway 36 at the Brennand Airport, Neenah, Wisconsin, when the accident occurred. The air transport rated pilot sustained minor injuries in the accident. The driver of the dump truck was uninjured. The 14 CFR Part 91 flight was operating in visual meteorological conditions, and no flight plan had been filed.

The pilot reported in a written statement included with the NTSB form 6120.1/2, that he was approaching to land on runway 36 at the Brennand Airport. The pilot reported that the final approach path requires an approximate altitude of 10 to 15 feet when crossing the road. The pilot reported that during the final approach he noticed a car, and a red dump truck coming down the road. To miss the dump truck, the pilot reported that he slowed the airplane. The pilot reported that the dump truck passed in front of the airplane, and he focused on his touchdown point. Following the first dump truck was a second grey and red dump truck. The left main gear tire of N2398Z contacted the upper portion of the dump box above the cab of the dump truck.

The pilot reported that just west of the airport there was a tree line and a cornfield near the road. It was reported by the pilot that a lightly colored vehicle in this area would be very difficult to see during final approach to the runway.

The distance from the edge of the runway to the road was reported by the pilot as approximately 180 feet. 200 feet is the recommended obstacle free zone as defined in AC 150/5300-13 CHG4. The latest Wisconsin Department of Transportation survey of the airport reported the road height as two feet higher elevation than the runway end. A three degree angle projection from the end of the runway to the near edge of the road, would give a road crossing height of 7.4 feet, at this point. The height of the dump truck was approximated by local law enforcement personal as 10 feet.

Low flying aircraft warning signs have been purchased by the local community for placement along the roadway, but as of October 29, 1996, the signs have not been erected. A witness who saw the aircraft on final approach reported that "It appeared to me that he was on a proper glide path for landing the plane."

The airplane's left wing outboard of the left main gear tire separated from the airplane. The tail of the fuselage separated just aft of the baggage compartment. The left main gear tire of the aircraft was wedged between the cab and the dump box of the dump truck.

Pilot Information

Certificate:	Airline transport; Flight engineer; Flight instructor	Age:	36, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 13, 1996
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	11500 hours (Total, all aircraft), 500 hours (Total, this make and model), 4880 hours (Pilot In Command, all aircraft), 125 hours (Last 90 days, all aircraft), 55 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N2398Z
Model/Series:	23 23	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	M-121
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	August 15, 1996 Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	8 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3050 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-D2B
Registered Owner:	FRONTLINE AVIATION INC.	Rated Power:	160 Lbs thrust
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:	ATW ,917 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	10:50 Local	Direction from Accident Site:	10°
Lowest Cloud Condition:	Clear	Visibility	12 miles
Lowest Ceiling:	Broken / 2000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	5°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	OSHKOSH , WI (OSH)	Type of Flight Plan Filed:	None
Destination:	(79C)	Type of Clearance:	None
Departure Time:	09:55 Local	Type of Airspace:	Class E

Airport Information

Airport:	BRENNAND 79C	Runway Surface Type:	Asphalt
Airport Elevation:	850 ft msl	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2090 ft / 15 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	44.159507,-88.470306(est)

Administrative Information

Investigator In Charge (IIC):	Boldenow, David
Additional Participating Persons:	JEFF ANDERSON; MILWAUKEE , WI
Original Publish Date:	February 18, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=10474

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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](#).