



# Aviation Investigation Final Report

<b>Location:</b>	MARSHFIELD, Wisconsin	<b>Accident Number:</b>	CHI96LA118
<b>Date &amp; Time:</b>	March 20, 1996, 15:00 Local	<b>Registration:</b>	N1835E
<b>Aircraft:</b>	Cessna 310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

## Analysis

The pilot of the Cessna 310, N1835E, stated that he had given position reports on the unicom frequency at downwind, left base, and again on final for landing on runway 34. The pilot of the Piper PA-32R, N1030Q, said that he had announced his intentions for takeoff from runway 4 on the same frequency. Both pilots said that they did not hear the other pilot's communications. The airplanes collided at the intersection of the two runways as the Cessna was touching down on runway 34 and the Piper was taking off on runway 4. Both pilots reported that they did not have visual contact with the other airplane prior to the collision.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the pilot of the PA-32R, N1030Q, to obtain identification of the Cessna 310R, N1835E, visually, and his inadequate visual outlook. A factor was the failure of both pilots to hear communications from each other.

## Findings

Occurrence #1: COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (F) COMMUNICATIONS - NOT RECEIVED - PILOT IN COMMAND
2. (F) COMMUNICATIONS - NOT RECEIVED - PILOT OF OTHER AIRCRAFT

3. (C) IDENTIFICATION OF AIRCRAFT VISUALLY - NOT OBTAINED - PILOT OF OTHER AIRCRAFT
4. (C) VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT

## Factual Information

On March 20, 1996, at 1500 central standard time, a Cessna 310R, N1835E, and a Piper PA-32R-300, N1030Q, collided at the intersection of runways 4 and 34 at the Marshfield Municipal Airport, Marshfield, Wisconsin. The Cessna was operating under provisions of 14 CFR Part 135 as an on demand air taxi, while the Piper was operating under 14 CFR Part 91 as a personal flight. The pilot and three passengers in the Cessna, and the pilot and one passenger in the Piper reported no injuries. Visual meteorological conditions prevailed at the time of the accident. The Cessna departed Ladysmith, Wisconsin, at 1425, and was landing on runway 34. The Piper was initiating a flight on runway 4 with the intended destination of Stambaugh, Michigan, at the time of the accident. Neither flight was operating on a flight plan. Both airplanes sustained substantial damage.

The pilot of the Cessna told an inspector from the Federal Aviation Administration (FAA), that he called on the unicom frequency 123.00 MHz, his position on downwind, left base, and again on final for runway 34 at Marshfield. He further stated that he heard no call from other aircraft and observed no other traffic in the air or on the ground. He indicated that as he flared his airplane to land on runway 34, another airplane appeared from the left and a collision occurred between his airplane and the Piper in the intersection of runways 34 and 4.

The pilot of the Piper told the FAA inspector that he called on the unicom frequency 123.00 MHz, reporting his intentions to back taxi on runway 4 for departure and after preparing for departure, called again to state his intentions to takeoff. He said that he did not hear any broadcast related to Marshfield. He stated that he scanned for other aircraft prior to initiating the takeoff roll, but did not see any in the air. He stated that he did not at anytime see the Cessna prior to the collision at the intersection of runway 4 and 34.

Information received from the ASOS, airport personnel and the pilots involved in the accident, revealed that visual meteorological conditions prevailed at the time of the accident. The AWOS was reporting winds of 360 degrees at 15 knots, gusts to 22 knots, ten minutes prior to the accident.

An examination of both airplanes subsequent to the accident revealed that the #1 and #2 communications in both airplanes were selected to 123.00 MHz. The Cessna was selected on #2 radio while the Piper was selected on #1.

In a written statement a member of the airport personnel stated that he first became aware of the collision when the Cessna pilot radioed that there had been an accident. This person indicated that he did not recall hearing any prior radio communications. Although he was in a position to hear the radio, he said that he was not specifically monitoring the unicom.

## Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	57, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	January 5, 1996
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	22000 hours (Total, all aircraft), 200 hours (Total, this make and model), 17000 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N1835E
<b>Model/Series:</b>	310R 310R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	310R1584
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	100 hour	<b>Certified Max Gross Wt.:</b>	5500 lbs
<b>Time Since Last Inspection:</b>	79 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	12600 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-MB
<b>Registered Owner:</b>	HEARTLAND AVIATION, INC.	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>	HEARTLAND AVIATION, INC	<b>Operator Designator Code:</b>	AZNA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Not reported
<b>Observation Facility, Elevation:</b>	MFI ,1277 ft msl	<b>Distance from Accident Site:</b>	360 Nautical Miles
<b>Observation Time:</b>	14:50 Local	<b>Direction from Accident Site:</b>	1°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots / 22 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	360°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	0°C / -12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	LADYSMITH , WI (RCX )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(MFI)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:25 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	MARSHFIELD MINICIPAL MFI	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1277 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	34	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## Wreckage and Impact Information

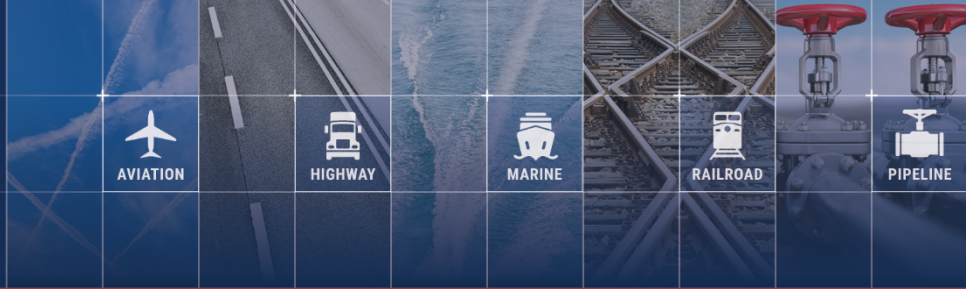
<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	3 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 None	<b>Latitude, Longitude:</b>	44.660339,-90.170738(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	WILSON, STEPHEN
<b>Additional Participating Persons:</b>	HAROLD C EUBANK; MILWAUKEE , WI CHESTER CYBULSKI; MILWAUKEE , WI
<b>Original Publish Date:</b>	September 9, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=10216">https://data.nts.gov/Docket?ProjectID=10216</a>

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](#).



# Aviation Investigation Final Report

<b>Location:</b>	MARSHFIELD, Wisconsin	<b>Accident Number:</b>	CHI96LA118
<b>Date &amp; Time:</b>	March 20, 1996, 15:00 Local	<b>Registration:</b>	N1030Q
<b>Aircraft:</b>	Piper PA-32R-300	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot of the Cessna 310, N1835E, stated that he had given position reports on the unicom frequency at downwind, left base, and again on final for landing on runway 34. The pilot of the Piper PA-32R, N1030Q, said that he had announced his intentions for takeoff from runway 4 on the same frequency. Both pilots said that they did not hear the other pilot's communications. The airplanes collided at the intersection of the two runways as the Cessna was touching down on runway 34 and the Piper was taking off on runway 4. Both pilots reported that they did not have visual contact with the other airplane prior to the collision.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the pilot of the PA-32R, N1030Q, to obtain identification of the Cessna 310R, N1835E, visually, and his inadequate visual outlook. A factor was the failure of both pilots to hear communications from each other.

## Findings

Occurrence #1: COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)  
Phase of Operation: TAKEOFF - ROLL/RUN

### Findings

1. (F) COMMUNICATIONS - NOT RECEIVED - PILOT IN COMMAND
2. (F) COMMUNICATIONS - NOT RECEIVED - PILOT OF OTHER AIRCRAFT

3. (C) IDENTIFICATION OF AIRCRAFT VISUALLY - NOT OBTAINED - PILOT IN COMMAND
4. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND



## Factual Information

See narrative on CHI96LA118A.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	70, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	November 20, 1995
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	11682 hours (Total, all aircraft), 700 hours (Total, this make and model), 11682 hours (Pilot In Command, all aircraft), 56 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N1030Q
<b>Model/Series:</b>	PA-32R-300 PA-32R-300	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	325-7780219
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	100 hour	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>	58 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4377 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-540-K1G5D
<b>Registered Owner:</b>	ROBERT H. LOO	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Not reported
<b>Observation Facility, Elevation:</b>	MFI ,1277 ft msl	<b>Distance from Accident Site:</b>	360 Nautical Miles
<b>Observation Time:</b>	14:50 Local	<b>Direction from Accident Site:</b>	1°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots / 22 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	360°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	0°C / -12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(MFI )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	STAMBAUGH , MI (Y73 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	MARSHFIELD MINICIPAL MFI	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1277 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	34	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	44.660339,-90.170738(est)

## Administrative Information

**Investigator In Charge (IIC):** WILSON, STEPHEN

**Additional Participating Persons:** HAROLD C EUBANK; MILWAUKEE , WI  
CHESTER CYBULSKI; MILWAUKEE , WI

**Original Publish Date:** September 9, 1996

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=10216>

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