



Aviation Investigation Final Report

Location:	BRAINERD, Minnesota	Accident Number:	CHI99LA040
Date & Time:	November 27, 1998, 12:01 Local	Registration:	N52502
Aircraft:	Cessna 172P	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A Cessna 172P, N52502, piloted by a private pilot, received substantial damage, when it collided with a Cessna 172M, N80357, during touchdown on Runway 23 at Brainerd-Crow Wing County Regional Airport (BRD), Brainerd, Minnesota. The pilot of N52502 stated that he had made a call on the common traffic advisory frequency (CTAF) of 122.7 and did not hear any other traffic in the area. A witness stated that he saw N52502 overtake and land on top of N80357, which had completed its touchdown on runway 23. Inspection of both aircraft by a mechanic revealed that both communication radios of N80357 were set to a frequency of 122.7 MHz and that the communication radios of N52502 were set to 135.8 MHz and 122.9 MHz. The CTAF for BRD was 122.7 MHz.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The visual lookout not obtained/maintained by the pilot. Contributing factors were the unicom frequency not selected and the traffic advisory not issued by the pilot. An additional factor was the aircraft moving on the ground.

Findings

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

Findings

1. (C) VISUAL LOOKOUT - NOT OBTAINED/MAINTAINED - PILOT IN COMMAND
2. (F) TRAFFIC ADVISORY - NOT ISSUED - PILOT IN COMMAND
3. (F) UNICOM - NOT SELECTED - PILOT IN COMMAND
4. (F) OBJECT - AIRCRAFT MOVING ON GROUND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

On November 27, 1998, at 1201 central standard time, a Cessna 172P, N52502, piloted by a private pilot, received substantial damage, on collision with a Cessna 172M, N80357, during touchdown on runway 23 (6,500 feet by 150 feet, dry asphalt) at Brainerd-Crow Wing County Regional Airport (BRD), Brainerd, Minnesota. Visual meteorological conditions prevailed at the time of the accident. Both aircraft were operating under the provisions of 14 CFR Part 91. N52502 was operating as a personal flight which was not on a flight plan. N80357 was operating as a student solo cross country flight which was on a visual flight rules (VFR) flight plan. The pilot and passenger of N52502 sustained minor injuries. The student pilot of N80357 sustained minor injuries. N52502's flight originated at Baraboo Wisconsin Dells Airport, near Baraboo, Wisconsin, at 0900, and was en route to Willmar, Minnesota.

The pilot of N52502 reported that he was sightseeing over a lake located north of BRD when he decided to land at BRD. The pilot stated that he had made a call on BRD's common traffic advisory frequency (CTAF) of 122.7 and did not hear any other traffic in the area. He then selected the automated surface observing system (ASOS) frequency, obtained the BRD weather and then reselected the BRD CTAF. The pilot stated that he did not see any other traffic while making his straight-in approach to runway 23 and only recalls exiting the airplane after the collision. The pilot stated that there were propeller marks on the top side of N80357.

In a written statement, the pilot of N80357 reported the following: "I left Leaders Airport (8Y6) at approximately 11:15 am on Friday, 27 November 1998. I had filed three flight plans and got weather briefings as well as NOTAM's prior to departure. Shortly after takeoff I called Princeton and activated my first plan (from 8Y6 to BRD) at about 11:17. I was doing a solo cross country direct to Brainerd Crow Wing Airport (BRD). The flight to BRD was uneventful. When I was approximately 10 miles from BRD; Mesaba Airlines called for traffic over the CTAF of 122.7. There were several responses to Mesaba including a Cessna that was 10 miles SE, myself 10 miles S, and two planes in the pattern at BRD. The only NOTAM for BRD on 27 Nov. was that the winds reported on AWOS were unreliable. I did not tune in AWOS as I approached as I knew winds were unreliable, a traffic pattern was established, and Runway 23 was the active runway. I established visual contact with the Cessna that was 10 miles SE as we got closer to BRD. Additionally, I located all of the traffic reporting on BRD CTAF 122.7. At four miles I reported that I would be entering the downwind leg at a 45 for Runway 23. The weather was clear (VFR) and sunny I entered the pattern at 2,000 feet MSL. Mesaba had landed and cleared after a 4 mile straight in approach, one plane was on final for 23, one had just taken off on 23, and the Cessna from the SE reported on 122.7 that he was downwind for 23. I reported being downwind, having visual on the other Cessna, and would be landing after he did. I reported each leg (downwind, base, final) on the CTAF 122.7. I started base approximately 3/4 to one mile from the end of Runway 23. As I approached and turned to final I looked for other traffic, reported final on 122.7, made sure the Cessna ahead of me had

cleared the runway before I would be touching down and did a visual check of my glide path with the VASI [Visual Approach Slope Indicator] lights. All appeared to be normal at this time. There was no transmission by other traffic that would lead me to believe anyone was on base or a long straight final. As I touched down I heard what appeared to be the sound of metal dragging on the runway. A split second later the airplane rose on the right hand side and started a left rotation. The left wing struck the runway and rotated the plane so that the nose was pointing down toward the runway from the starting attitude."

A witness stated that he saw N52502 overtake and land on top of N80357, which had completed its touchdown on runway 23.

Inspection of both aircraft, by a mechanic, revealed that the communication radios of N52502 were set to a frequency 135.8 MHz and 122.9 MHz. The mechanic also found the pilot's shoulder harness in N52502 stowed. Both communication radios of N80357 were found set to a frequency of 122.7 MHz.

The CTAF for BRD was 122.7 MHz.

Pilot Information

Certificate:	Private	Age:	41,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):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	October 30, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1600 hours (Total, all aircraft), 900 hours (Total, this make and model), 1540 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N52502
Model/Series:	172P 172P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17274542
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	October 14, 1998 Annual	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:	26 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4397 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated	Engine Model/Series:	O-320-D2J
Registered Owner:	PREMIER AIR CENTER INC	Rated Power:	160 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:	BRD ,1226 ft msl	Distance from Accident Site:	
Observation Time:	11:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BARABOO (DLL)	Type of Flight Plan Filed:	None
Destination:	(BRD)	Type of Clearance:	
Departure Time:	09:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	BRAINERD-CROW WING COUNTY BRD	Runway Surface Type:	Asphalt
Airport Elevation:	1226 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	
Runway Length/Width:	6500 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	46.349136,-94.190467(est)

Administrative Information

Investigator In Charge (IIC): GALLO, MITCHELL

Additional Participating Persons: JANICE ORR; MINNEAPOLIS , MN

Original Publish Date: March 31, 2000

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=45375>

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

Location:	BRAINERD, Minnesota	Accident Number:	CHI99LA040
Date & Time:	November 27, 1998, 12:01 Local	Registration:	N80357
Aircraft:	Cessna 172M	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

A Cessna 172P, N52502, piloted by a private pilot, received substantial damage, when it collided with a Cessna 172M, N80357, during touchdown on Runway 23 at Brainerd-Crow Wing County Regional Airport (BRD), Brainerd, Minnesota. The pilot of N52502 stated that he had made a call on the common traffic advisory frequency (CTAF) of 122.7 and did not hear any other traffic in the area. A witness stated that he saw N52502 overtake and land on top of N80357, which had completed its touchdown on runway 23. Inspection of both aircraft by a mechanic revealed that both communication radios of N80357 were set to a frequency of 122.7 MHz and that the communication radios of N52502 were set to 135.8 MHz and 122.9 MHz. The CTAF for BRD was 122.7 MHz.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The visual lookout not obtained/maintained by the pilot of the other aircraft. Contributing factors were the unicom frequency not selected and the traffic advisory not issued by the pilot of the other aircraft. An additional factor was the aircraft moving on the ground.

Findings

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

Findings

1. (C) VISUAL LOOKOUT - NOT OBTAINED/MAINTAINED - PILOT OF OTHER AIRCRAFT
2. (F) TRAFFIC ADVISORY - NOT ISSUED - PILOT OF OTHER AIRCRAFT
3. (F) UNICOM - NOT SELECTED - PILOT OF OTHER AIRCRAFT
4. (F) OBJECT - AIRCRAFT MOVING ON GROUND

Factual Information

See narrative CHI99LA040A.

Pilot Information

Certificate:	Student	Age:	34,Male
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 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 8, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	49 hours (Total, all aircraft), 38 hours (Total, this make and model), 12 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N80357
Model/Series:	172M 172M	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17266546
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 7, 1998 100 hour	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	72 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	8939 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-E2D
Registered Owner:	LEADERS FLYING SERVICE	Rated Power:	150 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:	BRD ,1226 ft msl	Distance from Accident Site:	
Observation Time:	11:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CLEAR LAKE (8Y6)	Type of Flight Plan Filed:	VFR
Destination:	(BRD)	Type of Clearance:	None
Departure Time:	11:15 Local	Type of Airspace:	Class G

Airport Information

Airport:	BRAINERD-CROW WING COUNTY BRD	Runway Surface Type:	Asphalt
Airport Elevation:	1226 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	
Runway Length/Width:	6500 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	46.349136,-94.190467(est)

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Investigator In Charge (IIC): GALLO, MITCHELL

Additional Participating Persons: JANICE ORR; MINNEAPOLIS , MN

Original Publish Date: March 31, 2000

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=45375>

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