



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Praire Du Sac, WI	<b>Accident Number:</b>	CEN11LA050
<b>Date &amp; Time:</b>	11/01/2010, 1415 CDT	<b>Registration:</b>	N448WM
<b>Aircraft:</b>	MCFARLAND BILL CHALLENGER II	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

The airplane impacted the ground following an in-flight separation of the left wing during cruise flight. The pilot, who was the sole occupant, was fatally injured. Witnesses reported seeing the airplane traveling north, about 300-500 feet above ground level, when one wing suddenly separated from the airplane. One of the witnesses stated that the other wing separated shortly after the first one. Postaccident examination confirmed that both wings were completely separated from the airplane with the exception of the right wing aft spar and aileron. Examination of the fractures in the wing attachment fittings revealed signatures consistent with overload failure with the exception of one fitting that had no perceptible damage due to deformation or fracture. The attachment bolt for the fitting that showed no perceptible overload damage was not recovered during the investigation; however, the relative lack of damage to the strut fitting indicates that the attachment bolt either failed, or its corresponding nut had loosened and separated during the flight. A portion of wing fabric retained for testing showed that the fabric met the minimum performance requirements as set forth in regulations. No preaccident defects were found with regard to the components examined.

## Flight Events

Enroute-cruise - Aircraft structural failure  
Uncontrolled descent - Collision with terr/obj (non-CFIT)

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The separation of the fuselage-mounted wing strut attachment fitting for an undetermined reason, which resulted in the separation of the left wing of the airplane.

## Findings

Aircraft-Aircraft structures-Fuselage-Wing attach fittings (on fus)-Failure - C  
Aircraft-Aircraft structures-Wing structure-(general)-Failure - C  
Not determined-Not determined-(general)-(general)-Unknown/Not determined - C

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	51
<b>Airplane Rating(s):</b>	None	<b>Instrument Rating(s):</b>	Helicopter
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Instructor Rating(s):</b>	
<b>Flight Time:</b>	6000 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	MCFARLAND BILL	<b>Registration:</b>	N448WM
<b>Model/Series:</b>	CHALLENGER II	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	On file	<b>Engine Manufacturer:</b>	BOMBARDIER
<b>Air Carrier Operating Certificate:</b>	None	<b>Engine Model/Series:</b>	ROTAX (ALL)
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	DLL, 979 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	None
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	Calm
<b>Temperature:</b>	8°C / 0°C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Prairie Du Sac, WI (91C)	<b>Destination:</b>	Merrill, WI (RRL)

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None

## Administrative Information

<b>Investigator In Charge (IIC):</b>	John M Brannen	<b>Adopted Date:</b>	08/07/2012
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=77712">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=77712</a>		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.