



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Bloomington, Indiana	Accident Number:	CEN14CA207
Date & Time:	April 19, 2014, 12:30 Local	Registration:	N298AB
Aircraft:	FLIGHT DESIGN GMBH CTSW	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that the winds were gusting from 14 to 19 knots when he was cleared to land on runway 17. As the pilot reduced the airspeed, the airplane "lost lift and began to drop rapidly." The pilot added full power; however, the airplane landed hard, bounced, and porpoised. The nosewheel landing gear bent aft resulting in substantial damage to the firewall. The pilot reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation. Wind at the time of the accident was recorded as 090 degrees at 9 knots, gusting to 14 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot did not maintain control of the airplane while landing.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	(general) - Not attained/maintained
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Landing-flare/touchdown	Hard landing (Defining event)
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Pilot Information

Certificate:	Commercial; Private	Age:	84
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Balloon	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 22, 2013
Flight Time:	1108 hours (Total, all aircraft), 438 hours (Total, this make and model), 1027 hours (Pilot In Command, all aircraft), 10.6 hours (Last 90 days, all aircraft), 5.9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FLIGHT DESIGN GMBH	Registration:	N298AB
Model/Series:	CTSW	Aircraft Category:	Airplane
Year of Manufacture:	2005	Amateur Built:	
Airworthiness Certificate:	Special light-sport (Special)	Serial Number:	05-09-10
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	April 1, 2014 Condition	Certified Max Gross Wt.:	1321 lbs
Time Since Last Inspection:		Engines:	Reciprocating
Airframe Total Time:	438.4 Hrs as of last inspection	Engine Manufacturer:	Rotax GmbH
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	ULS2
Registered Owner:	On file	Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBMG, 846 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	11:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots / 14 knots	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.3 inches Hg	Temperature/Dew Point:	18°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bloomington, IN (KBMG)	Type of Flight Plan Filed:	None
Destination:	Bloomington, IN (KBMG)	Type of Clearance:	None
Departure Time:	11:30 Local	Type of Airspace:	Class D

Airport Information

Airport:	Monroe County Airport KBMG	Runway Surface Type:	Asphalt
Airport Elevation:	846 ft msl	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	6500 ft / 150 ft	VFR Approach/Landing:	Full stop; Traffic pattern

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:	39.145832, -86.616668(est)

Administrative Information

Investigator In Charge (IIC): Rodi, Jennifer

Additional Participating Persons:

Original Publish Date: May 5, 2014

Last Revision Date:

Investigation Class: [Class](#)

Note: This accident report documents the factual circumstances of this accident as described to the NTSB.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=89092>

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](#).