



Aviation Investigation Final Report

Location:	Fremont, Nebraska	Accident Number:	CEN14CA514
Date & Time:	September 14, 2014, 14:30 Local	Registration:	N710DM
Aircraft:	STANLEY ARTHUR FREEMAN ZODIAC 601XL	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during the landing flare, he over-controlled and the airplane climbed. He then pushed forward on the elevator control and over-corrected. He said that before he knew it he was porpoising and the airplane landed hard. He stated that there were no mechanical problems with the airplane prior to the event. The airplane incurred damage to the firewall.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper landing flare which resulted in a hard landing.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Landing flare - Not attained/maintained
Personnel issues	Decision making/judgment - Pilot

Factual Information

History of Flight

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

Certificate:	Private	Age:	74
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot	Last FAA Medical Exam:	October 22, 1993
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 11, 2013
Flight Time:	399.2 hours (Total, all aircraft), 13.1 hours (Total, this make and model), 332.7 hours (Pilot In Command, all aircraft), 10.5 hours (Last 90 days, all aircraft), 6.5 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	STANLEY ARTHUR FREEMAN	Registration:	N710DM
Model/Series:	ZODIAC 601XL XL	Aircraft Category:	Airplane
Year of Manufacture:	2013	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	5636
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	September 13, 2014 Condition	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	22 Hrs	Engine Manufacturer:	General Motors
ELT:	Installed, not activated	Engine Model/Series:	Corvair
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:	FET,1204 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	19:35 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 4700 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	20°C / 9°C
Precipitation and Obscuration:			
Departure Point:	Fremont, NE (FET)	Type of Flight Plan Filed:	None
Destination:	Fremont, NE (FET)	Type of Clearance:	None
Departure Time:	13:00 Local	Type of Airspace:	

Airport Information

Airport:	FREMONT MUNI FET	Runway Surface Type:	Concrete
Airport Elevation:	1204 ft msl	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	6353 ft / 100 ft	VFR Approach/Landing:	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:	41.45,-96.52111

Administrative Information

Investigator In Charge (IIC):	Brannen, John
Additional Participating Persons:	Marlyn Beisner; FAA-Lincoln FSDO; Lincoln, NE
Original Publish Date:	October 20, 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.ntsb.gov/Docket?ProjectID=90132

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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](#).