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)

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