



National Transportation Safety Board Aviation Accident Final Report

Location:	Snohomish, WA	Accident Number:	WPR14CA004
Date & Time:	10/03/2013, 1500 PDT	Registration:	N143TZ
Aircraft:	VENABLES ZENITH CH701	Aircraft Damage:	Substantial
Defining Event:	Flight control sys malf/fail	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that during a test flight the airplane encountered moderate turbulence so he decided to return to the airport for landing. While turning to the crosswind leg in the pattern, the airplane suddenly banked sharply and descended uncontrollably. The pilot was able to regain control about 500 feet above ground level, and managed to turn the airplane to the downwind leg, but he continued to have difficulty maintaining control. The pilot then decided to make an emergency off airport landing to a field. During the landing roll, the airplane collided with obstructions and nosed over. The wings and fuselage were substantially damaged. After the accident, the pilot reported that the loss of aircraft control was due to a jammed rudder for undetermined reasons.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A jammed rudder control while maneuvering in the pattern for reasons that could not be determined. No follow-up examination was conducted due to a lapse in agency funding and subsequent government shutdown.

Findings

Aircraft	Rudder control system - Malfunction (Cause)
Environmental issues	Rough terrain - Not specified
Not determined	Not determined - Unknown/Not determined (Cause)

Factual Information

History of Flight

Enroute	Flight control sys malf/fail (Defining event)
Landing	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	Age:	72
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:	Sport Pilot	Last Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	09/01/2013
Flight Time:	223 hours (Total, all aircraft), 5 hours (Total, this make and model), 223 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	VENABLES ZENITH	Registration:	N143TZ
Model/Series:	CH701	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	7-5884
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	09/12/2013, Conditional	Certified Max Gross Wt.:	1150 lbs
Time Since Last Inspection:	3 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3 Hours	Engine Manufacturer:	Rotax
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	912ULS
Registered Owner:	On file	Rated Power:	100 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PAE	Observation Time:	1200 PDT
Distance from Accident Site:	10 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	90°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Scattered / 3600 ft agl	Temperature/Dew Point:	16° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Light and Variable/ 5 knots	Visibility (RVR):	
Altimeter Setting:		Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Snohomish, WA (S43)	Type of Flight Plan Filed:	None
Destination:	Snohomish, WA (S43)	Type of Clearance:	None
Departure Time:	1445 PDT	Type of Airspace:	Class E

Airport Information

Airport:	Harvey Field (S43)	Runway Surface Type:	N/A
Airport Elevation:	12 ft	Runway Surface Condition:	Unknown
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor		

Administrative Information

Investigator In Charge (IIC):	Debra J Eckrote	Adopted Date:	12/02/2013
Additional Participating Persons:	Dave A May; FAA-FSDO; Renton, WA		
Publish Date:	12/02/2013		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=88173		

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