



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Erwinna, PA	<b>Accident Number:</b>	ERA13LA229
<b>Date &amp; Time:</b>	05/04/2013, 1050 EDT	<b>Registration:</b>	N2045T
<b>Aircraft:</b>	SCHWEIZER SGS 2-33A	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Flight Test		

## Analysis

The glider pilot intended to practice stalls after being towed to an altitude of 3,000 feet mean sea level. Shortly after takeoff, the tow pilot observed the glider yaw left, then right, and then left again. He added that, for most of the tow, the glider appeared to be above the normal tow position with its nose pointed 45 degrees right. About 400 feet above ground level, the glider pilot released the tow line, and the glider turned about 180 degrees left; its right wing then impacted trees, and the glider pitched down and impacted terrain. Postaccident examination of the wreckage revealed that the rudder control cables were rigged backward. The accident flight was the first flight following the glider's most recent annual inspection. Before the annual inspection, the rudder had been removed for repair then re-installed. The mechanic who conducted a flight control check after the annual inspection with assistance from another pilot seated in the cockpit stated that he confirmed movement of the rudder while at the rear of the glider; however, he did not see which pedal the pilot was pushing and did not verbally confirm the corresponding position of the rudder pedals. If the pilot had conducted a thorough preflight inspection, he should have been able to detect that the rudder control cables were rigged backward.

## Flight Events

Initial climb - Flight control sys malf/fail  
Initial climb - Loss of control in flight  
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 pilot's loss of glider control due to improper rigging of the rudder control cables, the mechanic's inadequate flight control checks following the glider's most recent annual inspection, and the pilot's failure to perform a thorough preflight inspection.

## Findings

Aircraft-Aircraft systems-Flight control system-Rudder control system-Incorrect service/maintenance - C  
Aircraft-Aircraft oper/perf/capability-Performance/control parameters-(general)-Attain/maintain not possible - C  
Personnel issues-Task performance-Maintenance-Installation-Maintenance personnel - C

Personnel issues-Task performance-Inspection-Preflight inspection-Pilot - C  
Personnel issues-Task performance-Inspection-Scheduled/routine inspection-Maintenance personnel  
- C

## Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	76
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	Glider	<b>Instructor Rating(s):</b>	Airplane Single-engine; Glider; Instrument Airplane
<b>Flight Time:</b>	13290 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	SCHWEIZER	<b>Registration:</b>	N2045T
<b>Model/Series:</b>	SGS 2-33A	<b>Engines:</b>	0
<b>Operator:</b>	CIVIL AIR PATROL	<b>Engine Manufacturer:</b>	
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Flight Test		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	DYL, 394 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	None	<b>Wind Speed/Gusts, Direction:</b>	3 knots / , Variable
<b>Temperature:</b>	17° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Erwinna, PA (9N1)	<b>Destination:</b>	Erwinna, PA (9N1)

## Airport Information

<b>Airport:</b>	Vasant Arpt (9N1)	<b>Runway Surface Type:</b>	Grass/turf
<b>Runway Used:</b>	07	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	3058 ft / 120 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<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
<b>Latitude, Longitude:</b>	40.483889, -75.099722 (est)		

## Administrative Information

Investigator In Charge (IIC): John J Neylon

Adopted Date: 04/23/2014

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86821>

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