



# Aviation Investigation Final Report

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<b>Location:</b>	New Berlin, Pennsylvania	<b>Accident Number:</b>	ERA14CA385
<b>Date &amp; Time:</b>	August 4, 2014, 19:30 Local	<b>Registration:</b>	N502CW
<b>Aircraft:</b>	COTE JAMES RANS S 6S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Miscellaneous/other	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot stated that just after takeoff, the airplane entered "uncoordinated flight to the left." He applied right rudder to correct, but felt that the rudder was ineffective. After clearing trees at the end of the runway, the pilot elected to conduct a precautionary landing in a field. He stated that the airplane's rate of descent was "high," and that the nose landing gear collapsed upon touchdown. The airplane subsequently nosed over and came to rest inverted. Postaccident examination revealed substantial damage to the engine firewall, both wings, and the vertical stabilizer. Examination of the rudder controls revealed no anomalies. According to the pilot, his passenger was "apprehensive" about the flight, and inadvertently applied pressure to the left rudder pedal with his foot throughout the takeoff and accident sequence.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The passenger's inadvertent interference with the rudder controls during the takeoff.

## Findings

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<b>Aircraft</b>	Rudder control system - Unintentional use/operation
<b>Personnel issues</b>	Use of equip/system - Passenger

## Factual Information

### History of Flight

<b>Initial climb</b>	Miscellaneous/other (Defining event)
<b>Initial climb</b>	Flight control sys malf/fail
<b>Landing</b>	Off-field or emergency landing
<b>Landing</b>	Nose over/nose down

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	57
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	June 10, 2013
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	June 27, 2014
<b>Flight Time:</b>	180 hours (Total, all aircraft), 73 hours (Total, this make and model), 180 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	COTE JAMES	<b>Registration:</b>	N502CW
<b>Model/Series:</b>	RANS S 6S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2007	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	08051681
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	January 8, 2014 Annual	<b>Certified Max Gross Wt.:</b>	1200 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	112 Hrs at time of accident	<b>Engine Manufacturer:</b>	ROTAX
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	912ULS
<b>Registered Owner:</b>	BEACHY MARTIN JR	<b>Rated Power:</b>	100 Horsepower
<b>Operator:</b>	BEACHY MARTIN JR	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KSEG,450 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	126°
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	7 miles
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.06 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	New Berlin, PA (4PA1)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	New Berlin, PA (4PA1)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Saurers Field 4PA1	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	550 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	9/27	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	1200 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	40.883888,-76.980003(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Diaz, Allison
<b>Additional Participating Persons:</b>	Richard Thomas; FAA/FSDO; Harrisburg, PA
<b>Original Publish Date:</b>	October 9, 2014
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=89874">https://data.nts.gov/Docket?ProjectID=89874</a>

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