



Aviation Investigation Final Report

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

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

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

Factual Information

History of Flight

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

Pilot Information

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

Aircraft and Owner/Operator Information

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

Meteorological Information and Flight Plan

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

Airport Information

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

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Diaz, Allison
Additional Participating Persons:	Richard Thomas; FAA/FSDO; Harrisburg, PA
Original Publish Date:	October 9, 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.nts.gov/Docket?ProjectID=89874

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