



# Aviation Investigation Final Report

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<b>Location:</b>	York, South Carolina	<b>Accident Number:</b>	GAA16CA306
<b>Date &amp; Time:</b>	June 11, 2016, 11:30 Local	<b>Registration:</b>	N319RA
<b>Aircraft:</b>	S.O.C.A.T.A. RALLYE 150	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot reported that during takeoff in crosswind conditions, after rotation and about 6 feet above the ground, a gust of wind from the right pushed the airplane to the left of the runway toward a group of peach trees. The pilot further reported that he applied additional correction for the crosswind drift but was unable to give full deflection due to the proximity of the airplane above the ground, the left wing impacted the tree(s), and subsequently the airplane spun to the left.

The airplane sustained substantial damage to the right wing.

According to the pilot there were no preimpact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation.

A review of recorded data from the automated weather observation station located about 10 miles to the south east, revealed that, about 36 minutes before the accident the wind was 270 degrees true at 8 knots. A further review revealed that, about 24 minutes after the accident the wind was 290 degrees true at 10 knots. The airplane landed on runway 18.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain directional control during takeoff, which resulted in an impact with a peach tree(s).

## Findings

<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Crosswind - Effect on operation
<b>Environmental issues</b>	Tree(s) - Contributed to outcome

## Factual Information

### History of Flight

<b>Takeoff</b>	Other weather encounter
<b>Takeoff</b>	Loss of control in flight (Defining event)
<b>Takeoff</b>	Attempted remediation/recovery
<b>Takeoff</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	66, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Lap only
<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>	July 8, 2015
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 12, 2015
<b>Flight Time:</b>	(Estimated) 488 hours (Total, all aircraft), 143 hours (Total, this make and model), 380 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Passenger Information

<b>Certificate:</b>		<b>Age:</b>	14, Male
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	S.O.C.A.T.A.	<b>Registration:</b>	N319RA
<b>Model/Series:</b>	RALLYE 150 ST	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1977	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	3068
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 14, 2015 Annual	<b>Certified Max Gross Wt.:</b>	1913 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1293.5 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C126 installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320-E2A
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	On file	<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>	KUZA,669 ft msl	<b>Distance from Accident Site:</b>	10 Nautical Miles
<b>Observation Time:</b>	15:54 Local	<b>Direction from Accident Site:</b>	104°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	280°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.14 inches Hg	<b>Temperature/Dew Point:</b>	31°C / 20°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	York, SC (01SC)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	WEDDINGTON, NC (NC21)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	YORK 01SC	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	779 ft msl	<b>Runway Surface Condition:</b>	Dry;Rough
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2580 ft / 118 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 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 1 None	<b>Latitude, Longitude:</b>	35.028057,-81.252777(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Vanover, Jackie
<b>Additional Participating Persons:</b>	David W Martin; FAA; Columbia, SC
<b>Original Publish Date:</b>	September 12, 2016
<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=93372">https://data.nts.gov/Docket?ProjectID=93372</a>

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